Media 100 Legacy Compatible Peripherals Guide

Media 100 has tested and approved the configurations in this guide. For the most up-to-date information on current approved configurations, please refer to the Media 100 Compatible Peripherals Guide at http://www.media100.com/product/techinfo/techinfo.html.

▼ What's New

Customers who are looking for support, upgrades and/or parts for their Media 100 legacy systems can contact TimeLine Designs, Inc: http://www.timelinedesigns.com/

TimeLine Designs, Inc offers support for all Media 100 Mac-based models, older Macintosh platforms including NuBus and PCI systems and older Media 100 software, dating back to Version 2.6.2.

▼ Introduction

Media 100 digital editing systems are open systems that are compatible with most third-party peripherals. Since there are so many choices and possible configurations currently on the market, Media 100 Inc. has a dedicated group to test and recommend third-party peripherals on a continuing basis.

Media 100 products are extremely sophisticated and are constantly adding new capabilities. High-quality digital video and real-time effects demand extremely fast throughput and performance; therefore, we want to make sure that you configure complete systems that allow your Media 100 system to run at its optimum performance.

Included in this guide are specific system configurations and compatible peripherals that have been tested to date by Media 100 Inc. To ensure optimum performance of a Media 100 system, it is very important that these specified configurations be followed. As we continue our testing, this list of supported system configurations and compatible peripherals will be updated. Use this guide when configuring Media 100 systems.

NOTE   It is not required that you use only the peripherals in this document. However, Technical Support may not be able to fully assist you and your customers if they are not familiar with the equipment you are using.

When using this guide, keep the following in mind:

- For models with RealTimeFX Option, use Media 100 xr model configurations. For Media 100 le-DV model, use le configurations.

- We do no long-term reliability testing, but evaluate small quantities for a limited period of time. We test using programs that were created by Media 100 specifically to stress the systems with real-time transitions, real-time static titles, real-time audio EQ, and audio crossfades.

- Your results will vary if your real-time effects are longer with a shorter distance between them. You will get better results if they are shorter and there is a greater distance between them. For example, if you have back to back titles, the buffer may not have time to flush, and the second title may need to be rendered.

- All of the peripherals in the same category are not equal. It is the responsibility of the reseller and consumer to research the peripherals for additional features, quality, price, support, and warranty information.

- With the introduction of real-time effects, static titles, audio cross fades, and real-time audio EQ, Media 100 is increasing its demand on CPUs and disk drive performance.

  In previous versions of Media 100, certain configurations of peripherals would either be capable of 300 KB NTSC/360 KB PAL with eight audio tracks or not. Now with the variety of real-time effects, performance can vary depending on the length and type of transition used.

- Just because a product does not appear in a certain category does not mean that it will not perform with a specific Media 100 model at a different rate.

  Example: 2 x 9 GB Ultra drives with an Ultra MC card was capable of 300 KB NTSC/360 KB PAL with eight tracks of audio prior to the introduction of real-time effects, titles, and cross fades. Today, this same array is capable of 200 KB NTSC/240 KB PAL with six tracks of audio and cross fades and real-time titles and dissolves. If you utilize all real-time features with this configuration, you will achieve 200 KB (240 KB PAL) with six tracks of audio. However, if you limit the use of or shorten the titles and effects, the same array might perform at 250 KB to 300 KB with six to eight tracks of audio. If you eliminate the use of real-time, this array will perform at 300 KB (360 KB PAL) with eight tracks of audio.

- The first Media 100 Remote Field Editor (RFE) PowerBook is only capable of expanding to 192 MB of RAM.

▼ Media 100, Mac OS, and CPU Compatibility

The following table provides a compatibility overview of Media 100 software versions, Media 100 Test versions, Mac OS versions, QuickTime versions, and Macintosh CPUs.

Media 100, Mac OS, and CPU Compatibility Chart

Media 100 Version	Media 100 Test Version	Mac OS Version	QuickTime Version	CPU
i 7.5.1	03.18.2002	9.2.2, 9.2.1, 9.2, 9.1, 9.0.4	6.0, 5.0.2	G4 (Digital Audio) 733, 667, 533, 466, 533 dual; G4 (Gigabit Ethernet) 500 dual, 450 dual, 400; G4 (AGP) 500, 450, 400; G4 (PCI) 400, 350
i 7.5	2.20.2001	9.2.2, 9.2.1, 9.2, 9.1[1], 9.0.4	5.0.2, 4.1.2,	G4 (QuickSilver) 867, 800 dual; G4 (Digital Audio) 733, 667, 533, 466, 533 dual; G4 (Gigabit Ethernet) 500 dual, 450 dual, 400; G4 (AGP) 500, 450, 400; G4 (PCI) 400, 350
i 7.0.2	2.20.2001	9.1, 9.0.4	4.1.2	G4 (Digital Audio) 733, 667, 533, 466, G4 (Gigabit Ethernet) 500 dual, 450 dual, 400; G4 (AGP) 500, 450, 400; G4 (PCI) 400, 350; G3 (Blue & White) 450, 400, 350; G3 300, 266, 233
i 7.0.1	9.20.2000	9.0.4	4.1.2	Same as Version 6.0.3
i 7.0	09.20.2000	9.0.4	4.1.2	Same as Version 6.0.3
6.0.3	07.26.2000	9.0.4	4.1.2	G4 (Gigabit Ethernet) 500 dual, 450 dual, 400; G4 (AGP) 500, 450, 400; G4 (PCI) 400, 350; G3 (Blue & White) 450, 400, 350; G3 300, 266, 233; 9600
6.0.2	01.31.2000	9.0.4, 9.0.2, 9.0	4.1	Same as Version 6.0.1
6.0.1	01.31.2000	9.0.2, 9.0	4.1	G4/500, 450, 400 (AGP), G4/400, 350 (PCI); B&W G3/450, 400, 350; Beige G3/300, 266, 233; 9600
6.0	01.31.2000 (Replaces 01.04.2000, 11.04.99)	9.0.2, 9.0, 8.6 (8.1 or higher is approved, but 8.6 or higher is recommended)	4.1 (only with Mac OS 9.0 or 9.0.1), 4.0.3, 4.0.2, 4.0.1	G4/450, 400 (AGP), G4/400, 350 (PCI); B&W G3/450, 400, 350 (B&W Macs must have Mac OS 8.6); Beige G3/300, 266, 233; 9600
6.0 RFE	11.04.99	9.0, 8.6, 8.5.1	4.1 (only with Mac OS 9.0), 4.0 (only with 8.6), 3.0.2	PowerBook G3 Series 300
5.5.3	07.16.99	9.0 (on G4s with QT4.1 only), 8.6	4.1 (only with Mac OS 9.0), 4.03, 4.02, 4.01	G4/450, 400 (AGP); G4/350 (PCI)
5.5.2	07.16.99	8.6, 8.5.1	4.0 (only with Mac OS 8.6), 3.0.2	B&W G3/450, 400, 350 (B&W Macs must have Mac OS 8.6); Beige G3/300, 266, 233; 9600
5.5.1	04.26.99	8.6, 8.5.1, 8.5, 8.1	4.0 (only with Mac OS 8.6), 3.0.2	B&W G3/450/400, 350 (B&W Macs must have Mac OS 8.6; Beige G3/300, 266, 233; 9600

Media 100, Mac OS, and CPU Compatibility Chart *(Continued)*

Media 100 Version	Media 100 Test Version	Mac OS Version	QuickTime Version	CPU
5.5.1 RFE	04.26.99	8.6, 8.5.1	4.0 (only with Mac OS 8.6), 3.0.2	PowerBook G3 Series 300
5.5	02.11.99	8.6 (Beige G3 and 9600 only), 8.5.1, 8.5, 8.1	3.0.2	Beige G3/300, 266, 233; 9600, 9500, 8600, 8500, 7600
5.0 and 5.0.1	11.10.98	8.5.1, 8.5, 8.1	3.0.2	Beige G3/300, 266, 233; 9600, 9500, 8600, 8500, 7600
4.5 and 4.5p1	4.5a	8.1, 8.0	3.0.2, 2.5	Beige G3/300, 266, 233; 9600, 9500, 8600, 8500, 7600 (DayStar Genesis MP 400+, 720+, 800+, Power Computing Power Tower Pro 225 & 250 with Vincent hardware only)
4.0 and 4.0p1, 4.0p2, 4.0p3	4.0e	8.1, 8.0, 7.6.1	2.5	Beige G3/300, 266, 233; 9600, 9500, 8600, 8500, 7600 (DayStar Genesis MP 400+, 720+, 800+, Power Computing Power Tower Pro 225 & 250 with Vincent hardware only)
3.1 and 3.1p1	3.1	7.6.1, 7.5.5	2.5	9600, 9500, 8600, 8500, 7600 (DayStar Genesis MP 400+, 720+, 800+, Power Computing Power Tower Pro 225 & 250 with Vincent hardware only)
3.0	3.0	7.6.1, 7.5.5	2.5	9600, 9500, 8600, 8500, 7600 (DayStar Genesis MP 400+, 720+, 800+, Power Computing Power Tower Pro 225 & 250 with Vincent hardware only)
2.6.2	2.6.2k	7.5.3 Rev. 2	2.5, 2.0	(PCI) 9600, 9500, 8500, 7600, (NuBus) Quadra 840 AV, 8100/80, 100, 110

[1]The Media 100 Lossless Option requires a G4 QuickSilver 2002, QuickSilver or Digital Audio system and Mac OS 9.1or higher.

NOTE   Media 100 discovered an intermittent diagnostic failure when running the 02.20.2001 Media 100 i diagnostic test with the Power Mac G4 QuickSilver 867 system. Run the test a second time to correct the failure. The failure is not related to the Media 100 hardware and does not affect the Media 100 i application. A diagnostic failure also occurs when running the 02.20.2001 Media 100 i diagnostic test on systems with more than 1 GB of RAM installed. You must have less than 1 GB of RAM for the diagnostics to work properly.

Media 100 qx, Mac OS, and CPU Compatibility Chart

Media 100 qx Version	Media 100 Test Version	Adobe® Premiere Version	Mac® OS Version	QuickTime Version	CPU	Notes
5.2	04.26.99	5.1a,5.1	8.6 [with G3 (Blue and White) only], 8.5.1, 8.5, 8.1	3.0.2	G3/350 (Blue and White) [must use Mac OS 8.6]; G3/300, 266, 233; 9600; 9500; 8600; 8500; 7600	Drivers compatible with Media 100 Version 5.5.1 and 5.5. Encryption code required. Minimum required for G3 (Blue and White).
5.1	11.10.98	5.1	8.5.1, 8.5, 8.1	3.0.2	G3/300, 266, 233; 9600; 9500; 8600; 8500; 7600	Drivers compatible with Media 100 Version 5.0. Encryption code required. Minimum required for P6000 hardware.
5.0p	07.22.98	5.1	8.5.1, 8.5, 8.1	3.0.2	G3/300, 266, 233; 9600; 9500; 8600; 8500; 7600	Drivers compatible with Media 100 Version 5.0.

Media 100 qx, Mac OS, and CPU Compatibility Chart

Media 100 qx Version	Media 100 Test Version	Adobe® Premiere Version	Mac® OS Version	QuickTime Version	CPU	Notes
5.0	07.22.98	5.0	8.1, 8.0	3.0.2	G3/300, 266, 233; 9600; 9500; 8600; 8500; 7600; DayStar Genesis MP 800+, 720+, 400+ [with Vincent™ hardware only]; Power Computing PowerTower Pro 250, 225 [with Vincent™ hardware only]	Drivers compatible with Media 100 Version 5.0.
4.5	4.5a	4.2.1	8.1, 8.0, 7.6.1	3.0.2,2.5	9600; 9500; 8600; 8500; 7600; DayStar Genesis MP 800+, 720+, 400+ [with Vincent™ hardware only]; Power Computing PowerTower Pro 250, 225 [with Vincent™ hardware only]	Drivers compatible with Media 100 Version 4.5

NOTE   The Media 100 qx product line has been discontinued. Media 100 qx Version 5.2 was the last release of this product for Macintosh. Media 100 Inc. tested Media 100 qx on the Power Mac G4 platform, but found performance issues that would require engineering evaluation by Media 100 and Adobe (and potentially by Apple). No additional compatibility testing is planned for Media 100 qx. This table represents the only configurations that have been approved at one time by Media 100 Inc.

▼ Technical Notes

This section addresses issues found with CPUs and Disk Drive Controllers, including

- "Slowing Synchronous Transfer Rates" on page 8
- "Ultra SCSI and Older 3-slot Systems" on page 10
- "RAM Issues" on page 10
- "Power Computing Clones" on page 11

Slowing Synchronous Transfer Rates

With Media 100 **xs** in a dual-monitor configuration, Media 100 has found that the high speed of Low Voltage Differential (LVD) SCSI controllers at full speed (80 MB/second) can monopolize the limited PCI bandwidth in a blue and white G3 or G4 computer, and in so doing may cause performance problems at high data rates. To prevent these issues, slow down the transfer rate of this system in a blue and white G3 or G4 computer. By slowing down the transfer rate to 20 MB/second, you can still achieve data rates up to 300 KB/frame NTSC and 360 KB/frame PAL.

Customers with Media 100 **le** through **xr** systems may need to perform this procedure if they encounter persistent bad video frames in a blue and white G3 or G4 computer.

The following two sections outline the steps required to slow down the synchronous transfer rates of the Adaptec 2940U2B or 2940U2W and ATTO ExpressPCI UL2S SCSI controllers.

Adaptec 2940U2B and 2940U2W SCSI Controllers

Version 5.1 of Adaptec PowerDomain Control utility is required to slow down the synchronous transfer rate of the Adaptec 2940U2B or 2940U2W SCSI controller. This software is available for download from Adaptec at ftp://ftp.adaptec.com/pub/BBS/PowerMac.

To slow down the transfer rate of the Adaptec 2940U2B or 2940U2W

1 Launch the Power Domain Control utility.

2 In the Select a SCSI Bus window, select the Power Domain card.

3 At the bottom of the PowerDomain Control window, select the Advanced tab.

4 In the Advanced section, drag the SCSI Mode slider to Fast-SCSI and release.

5 Click Set at the top right of the PowerDomain Control window.

6 Quit the PowerDomain Control utility.

7 Restart the computer to effect the changes.

NOTE   Media 100 recommends that you leave the other settings for the PowerDomain SCSI controller at their defaults: "Termination" at "Automatic" and "PCI Bus Mode" at "Immediate."

ATTO ExpressPCI UL2S SCSI Controller

ATTO ExpressPro-Tools utility is required to slow down the synchronous transfer rate of the ATTO ExpressPCI UL2S SCSI controller. At the time of release of this document, version 2.2 of this software is available for download from ATTO at http://www.attotech.com/software/

To download ATTO ExpressPro-Tools utility

1   Starting from the software download page, select "Applications" from the pull down menu.

2   From the Applications page, select ATTO ExpressPro-Tools from the pull down menu.

3   From the second Applications page, select SCSI and Fibre Channel MAC Version 2.2 and click Next.

4   Enter your name and email address.

NOTE   If you are not using ATTO RAID software, disable or remove the ExpressPro-Tools Ext 2.2 extension installed in the Extensions folder within the System folder by the ATTO ExpressPro-Tools Installer. You may otherwise experience messages at start-up that one or more of your disks cannot be recognized when using RAID software other than ATTO's.

To slow down the transfer rate of the ATTO Express PCI UL2S card

1   Launch the ExpressPro-Tools utility.
2   In the Buses and Drives window, if necessary, click the arrow next to the ATTO Technology Bus so that the arrow points down to display the disk drives on that SCSI Bus.
3   Select one of the several drives listed under the ATTO Technology Bus to highlight the drive. Do not select the ATTO Technology SCSI controller itself.
4   Choose File>Get Info to open the Device Information window for that drive.
5   Within the SCSI ID Configuration section at the bottom of the Device Information window, select "20 (10)" from the Synch Rate menu.
6   Click Apply To All at the bottom of the Device Information window.
7   Quit the ExpressPro-Tools utility.
    If changes were made, an alert window will appear: "Changes have been made to the Host Bus Adapter card's configuration parameters, which will take a few moments to save. Do you want to save them?"
8   Click Yes.
    Once the changes have been written to the flash ROM, an alert appears: "Writing Flash ROM is complete! You must restart your system for changes to take effect."
9   Click OK.
10 Restart the computer to effect the changes.

NOTE   Media 100 recommends that you leave the other settings for the ExpressPCI UL2S SCSI controller at the defaults.

Ultra SCSI and Older 3-slot Systems

Ultra SCSI will not work on older 3-slot PCI machines (7500, 7600, 7300, 8500, and 8600) with Media 100; bad video frame errors may occur. This does not apply to the Apple Power Macintosh G3 machines.

To prevent bad video frame errors, slow down the synchronous transfer rate of Ultra SCSI by using one of the procedures in "Slowing Synchronous Transfer Rates" on page 8. By slowing down the transfer rate to 20 MB/second, you can still achieve data rates up to 300 KB/frame.

SSA and Fibre Channel controller cards will also have problems in an older 3-slot PCI machine with P6000/Vincent. This is not the case with the Apple Power Macintosh G3 machines.

RAM Issues

There are issues concerning RAM in the Power Macintosh systems. It is important that the DIMMs you use are identical. Verify that the RAM is the same speed, and that the refresh rate on the RAM is the same for all DIMMs. Multi-Processor CPUs are especially susceptible to inferior or mismatched RAM. If there are differences, you may experience intermittent problems such as system crashes and lock-ups. The RAM will also not interleave, which is critical for video playback.

This does not apply to the Apple Power Macintosh G3 machines since these machines use a different type of RAM that does not require interleaving. The G3 requires PC-100 compliant 168–pin 3.3 volt unbuffered 8 byte (non-parity) SDRAM DIMMS.

RAM Recommendations

Macintosh Model	Type of RAM	Speed
Power Macintosh 7200, 7300, 7500, 7600, 8500, 8600, 9500, 9600	64 Bit wide 5 volt 168 pin fast paged mode	70 ns
Beige G3	64 Bit JEDEC standard 3.3 volt unbuffered SDRAM	10 ns
Blue and White G3	64 Bit PC-100 synchronous 3.3 volt unbuffered	8 ns
G3 Powerbook	SDRAM special 1.5 wide card	10 ns
G4	64 Bit wide, 168 pin, running at 100 MHz, PC-100, SDRAM, 3.3 volt, unbuffered	8 ns

Power Computing Clones

As of November 1998, Power Computing clones are no are longer recommended. Media 100 has removed the Power Computing PowerTower Pro 225 MHz and 250 MHz from our peripherals guide. There are several reasons for this change:

■ Power Computing clones are no longer under license with Apple Computer and will not be tested with Mac OS 8.5 or higher. Since Apple does not manufacture or support this clone technology, they cannot ensure quality with future operating systems. The last tested and supported version of the operating system by Apple on Power Computing clones is OS 8.1.

■ Since Apple is the first step in OS compatibility testing, Media 100 has no formal plans to test the PowerTower systems with OS 8.5 or higher. We cannot guarantee its compatibility with these systems if customers choose to upgrade.

■ The Media 100 hardware that ships with Version 5.0 or higher (P6000) does not fit correctly in the PCI chassis/card cage. Media 100 has designed this next generation card in complete compliance with PCI specifications. The PowerTower chassis has a smaller card opening that prevents the new hardware from being installed. Attempting to install new hardware in a Power Computing system may result in damage to the board and will void the hardware warranty.

Customers with Power Computing systems may continue to use Version 4.5 software with OS 8.1 and Vincent hardware. If they wish to purchase a new Media 100 or upgrade their existing Media 100 with the DV Option or SDI Option, they will receive new Media 100 hardware and should investigate the purchase of a new Apple Macintosh computer.

Customers with Power Computing systems who wish to upgrade to Version 5.0 and higher and stay with their existing Vincent hardware may do so. We recommend that these customers follow the guidelines set forth at http://www.media100.com/customer/advocate/advocate37.html#5.

Future versions of Media 100 software will be tested on future versions of the Mac OS.

▼ MediaPress Suite Configurations

MediaPress Suite is an MPEG encoding and decoding solution. You can encode in real-time directly from a tape deck or directly from a Media 100 program using two CPUs. Accelerated transcoding QuickTime files to MPEG files requires one CPU and an expansion chassis. Media 100 has tested and approved MediaPress Suite with Media 100 Version 6.0 and higher. See one of the next sections, depending on your configuration.

Real-Time Encoding Configuration

For real-time MPEG encoding, you can process files directly out of Media 100, using two CPUs.

- System 1 - Media 100 le-xr (play)

    Use any approved CPU in this guide.

- System 2 - Wired MediaPress and Wired Stream (encode/decode)

    Use a beige or blue and white G3 or a G4.

Slot Assignment: Real-Time MediaPress Suite - System 1

Slot	Assignment
Graphics	ATI Graphics
1	P6000
2	E6000 or E6001 with SDI; Empty
3	SCSI

Slot Assignment: Real-Time MediaPress Suite - System 2

Slot	Assignment
Graphics	ATI Graphics
1	Wired MediaPress YUV
2	WiredStream
3	Empty

NOTE   There is no machine control available between two systems, and therefore this method is not frame-accurate.

Accelerated Transcoding Configuration

For accelerated transcoding of QuickTime files to MPEG files, configure your system with a CPU and expansion chassis.

- The following CPUs were tested and approved in this configuration:
  - □ Blue and white G3/400
  - □ G4/400 AGP, G4/450 AGP, or G4/500 AGP

- The following expansion chassis were tested and approved in this configuration:
  - □ SBS-Bit 3 4 slot (ME-34)
  - □ Magma 7 slot (PCI-7-TX-400V or PCI-7-TX-300V)

Slot Assignment: Accelerated MediaPress Suite

Slot	Assignment
CPU Graphics	ATI Rage
CPU 1	MediaPress YUV
CPU 2	WiredStream
CPU 3	Expansion chassis host
Chassis 1	P6000
Chassis 2	E6000
Chassis 3	SCSI
Chassis 4	Empty

▼ Power Suite Configurations

Media 100 has tested and approved Power Suite 4.0.3 with Ultra Ice configurations for G4 400/450 AGP for Media 100 le-xs (see page 28).

NOTE   We cannot recommend using Power Suite 4.0.3 with Ultra Ice in conjunction with expansion chassis.

Media 100 has tested and approved Power Suite 1.0 with Ultra Ice configurations for the following:

- Beige G3 for Media 100 le-xs (see page 20)

- Blue and white G3 with internal ATA drive for Media 100 le-xs (see page 24)

- Blue and white G3 (ATA) with Magma PCI-7-TX-400V expansion chassis for Media 100 xr (see page 27)

- G4/PCI for Media 100 le-xs (see page 37)

▼ Media 100 Configurations

This section explains the CPU and expansion chassis configurations for your Media 100 system:

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9600 Configurations

There are many combinations of PCI cards that can be installed and work together. The upper PCI slots (A1, B1, and C1) are controlled by one PCI arbitrator chip. This chip also handles the Power Macintosh I/O functions. A separate PCI arbitrator chip handles the traffic for the lower PCI slots (D2, E2, and F2). Because this chip does not handle I/O traffic, it has better bandwidth. Our recommendations are guidelines for you to follow. However, if you run into compatibility problems with your particular configuration, you may need to try different slot assignments.

9600 CPUs

- 9600/200

- 9600/233

- 9600/300

- 9600/350

9600 Graphics Cards

- IXMicro 3D Ultimate Rez

- ATI XClaim 3D Pro

9600 SCSI Cards

- Adaptec 2940U2W

- Adaptec 2940UW

- Adaptec 3940UW

- ATTO PCI-UL2S

- ATTO PCI-UL2D
- ATTO PCI-DCd
- ATTO PCI-PSC

9600 Media 100 Hardware

- Vincent™, Vincent 601, P6000

- HDRfx, E6000, E6001

- DV600 (attached to P6000)

- SD600 (attached to E6000/E6001)

9600 Slot Assignment Configurations

We used the following guidelines in constructing Media 100 xr configurations:

- The P6000 card and the E6000 card must be next to each other since they are connected by an over-the-top connector cable.

- The P6000 and E6000 should be placed in slots D2 and E2, because it is in the lower, "cleaner" PCI bus with less traffic and is further from the heat of the CPU card.

- The SCSI controller must be in the same PCI bus as the E6000/HDRfx card. Because the E6000 contains RAM, the system uses that memory instead of going through the PCI bus to the Mac memory. The system does direct memory transfers within the PCI bus, thus improving performance. This recommendation is subject to change when other third party PCI cards are used together in one computer, for example, the Effetto Pronto PCI card.

- We recommend only one dual-channel SCSI. We do not recommend two dual-channel SCSI cards in one computer.

We used the following guidelines in constructing Media 100 le-xs configurations:

- P6000/Vincent in slot E2, because it is in the lower, "cleaner" PCI bus with less traffic and is further from the heat of the CPU card.

- The graphics card in the same bus as the P6000 since it does direct access to the graphics card for the Edit Suite subsampler

- The SCSI card (or SSA and FC-AL) in a different bus than the P6000 (and E6001 with SD600, if applicable), since both cards are demanding on PCI bus throughput and can cause bus contention

- Gaudi in the same PCI bus as the P6000 (slot D2). However, if you have a 9600/132 or 9600/150, you may have an earlier version of the PCI arbitrator chip and could run into occasional "Bad Video frame" messages. If you do, place Gaudi in the other PCI bus (slot C1).

■ Only one dual-channel SCSI card or two single-channel SCSI cards be used within the CPU at one time. We do not recommend two dual-channel SCSI cards in one computer.

9600 Power Macintosh
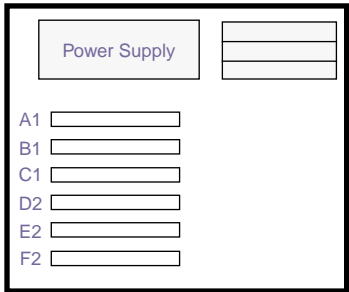
Slot Assignments: 9600

Slot	xr Configuration	le-xs Configuration
A1	Blue/Green Ice, Effetto Pronto, Gaudi[1], or Empty	2nd Graphics[2]
B1	Graphics	SCSI
C1	2nd Graphics[2]	Effetto Pronto, 2nd SCSI, Gaudi[1], or Empty
D2	P6000/Vincent 601/Vincent™	E6001 with SD600 or Empty
E2	E6000/HDRfx (SD600 is attached with SDI Option)	P6000/Vincent 601/Vincent™
F2	SCSI/Host Bus Adapter	Graphics

[1]*Gaudi was not tested with Media 100 Version 6.0. Use Gaudi only with Version 5.5 or lower.*
[2]*For a single-monitor configuration, leave 2nd Graphics slot empty.*

Beige G3 Configurations

Both the G3 Minitower and the G3 Desktop models have been tested and are recommended. The Beige G3 has 3 DIMM slots that support up to 768 MB with three 256 MB SDRAM (128-bit wide) DIMMS, and 3 PCI slots plus a built-in video personality card. The Beige G3 has a much faster PCI bus architecture than the previous 3-slot models. Therefore, it is capable of 300 KB and can use Ultra SCSI and LVD controllers. We recommend the G3 systems configured with internal ATA drive.

Beige G3 CPUs

- G3/233

- G3/266

- G3/300 (see note below)

- G3/333 (see note below)

NOTE   The G3 with the Ultra SCSI drive ships with an ATTO SC Ultra SCSI controller. This controller takes a PCI slot and does not support external devices. To use this model, you have to replace the single-channel card with an ATTO UL2D dual-channel card, connect the internal system disk to one channel, and have the second channel available for external drives.

Beige G3 Graphics Cards

- ATI Xclaim

- ATI Xclaim 3D (do not use in expansion chassis configurations)

- ATI Nexus GA

Beige G3 SCSI Cards

- Adaptec – use Remus 1.4 or Charismac 2.01g striping software

  □ 2940U2W

  □ 2940UW

  □ 3940UW

- ATTO Express – use ATTO Express Raid 1.2 or Charismac 2.01g striping software

  □ PCI DC

  □ PCI DCd (do not use in expansion chassis)

  □ PCI MCU (do not use in expansion chassis)

  □ PCI PSC

  □ PCI UL2D

  □ PCI UL2S (do not use in expansion chassis)

- Hammer Storage JackHammer PCI Ultra SCSI DIFF DC – use ATTO Express Raid 1.2 or Charismac 2.01g striping software
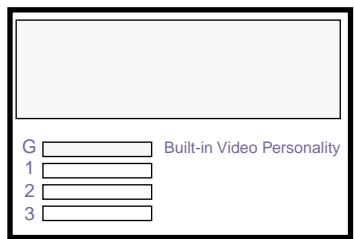
Beige G3 Fibre Channel Cards

■ Emulex Fibre Channel

Beige G3 Media 100 Hardware

■ Vincent™, Vincent 601, P6000

■ HDRfx, E6000, E6001

■ DV600 (attached to P6000)

■ SD600 (attached to E6000/E6001)

Beige G3 Slot Assignment Configurations

Beige G3 Power Macintosh

G		Built-in Video Personality
1		
2		
3		

Slot Assignments: Beige G3

Slot	xr Configuration	le-xs Configuration
Graphics	Built in Video Personality Graphics	Built in Video Personality Graphics
1	P6000/Vincent 601/Vincent™	P6000/Vincent 601/Vincent™
2	E6000/HDRfx (SD600 attached with SDI Option)	2nd Graphics, E6001 with SD600 (SDI Option), Effetto Pronto, Blue/Green Ice[1], Power Suite 1.0 (Ultra Ice[1]), or Empty
3	SCSI	SCSI

[1]*The G3 Ice configurations were only tested with the P6000 board. Our test results have remained consistent when comparing Vincent and P6000 hardware performance. Blue/Green Ice users must have board rev. C, ICEfx2.1m1 update and a replacement ROM. To order, call 800-ICE-THIS.*

The following sections contain slot configurations for Media 100 with the following certified expansion chassis models:

■ The Bit 3/SBS Expansion Chassis (ME21 Minitower and the ME22 Rackmount) 7 slot. See

■ The Magma Expansion Chassis (PCI-7-TX-400V) 7 slot. See

NOTE Expansion chassis configurations have not been approved for use with the PowerMac G3/333 MHz model. Performance may be different with this model. Older models of the PowerMac G3 may require Apple's newest Boot ROM version. ROMs will be readily available from the Expansion Chassis manufacturers.

Beige G3 with Bit 3 (ME-21/22) Expansion Chassis

Bit 3 (ME-21/22) Expansion Chassis
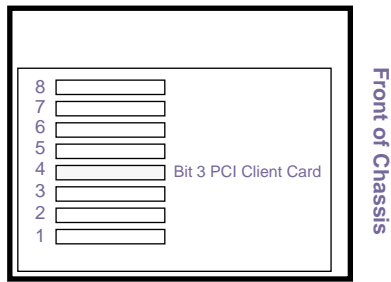
Choose configuration...	If you have...
1	xr, 1 SCSI
2	le-xs
3	xr, 2 SCSI
4	xr, 1 graphics card, Gaudi or Effetto Pronto

Slot Assignments: Beige G3 with Bit 3

Slot	Configuration 1	Configuration 2	Configuration 3	Configuration 4
Chassis 1	P6000/Vincent 601/ Vincent™	SCSI	SCSI	P6000/Vincent 601/ Vincent™
Chassis 2	E6000/HDRfx[1]	2nd SCSI	2nd SCSI	E6000/HDRfx[1]
Chassis 3	SCSI card	Empty	Empty	Effetto Pronto or Gaudi[2]
Chassis 4	Bit 3 PCI Client	Bit 3 PCI Client	Bit 3 PCI Client	Bit 3 PCI Client
Chassis 5	Graphics	Graphics	Graphics	SCSI
Chassis 6	2nd Graphics	2nd Graphics	2nd Graphics card	Graphics
Chassis 7	Empty	Empty	Empty	Empty
Chassis 8	Empty	Empty	Empty	Empty
G3 Graphics	Built in Video Personality	Built in Video Personality	Built in Video Personality	Built in Video Personality
G3 1	Bit 3 PCI Host	P6000/Vincent 601/ Vincent™	P6000/Vincent 601/ Vincent™	Bit 3 PCI Host
G3 2	Empty	E6001 with SD600[3]	E6000/HDRfx[1]	Empty
G3 3	Empty	Bit 3 PCI Host	Bit 3 PCI Host	Empty

[1]*If you have the SDI Option, the SD600 daughter card is attached to the E6000 card.*
[2]*Gaudi was not tested with Media 100 Version 6.0. Use Gaudi only with Version 5.5 or lower.*

[3]*For configuration 2, if you do not have the SDI Option, leave slot G3 2 empty.*

NOTE   In an expansion chassis, without the E6000/HDRfx, the P6000/Vincent 601/Vincent™ must be in CPU slots. Place cards demanding PCI bandwidth close to the PCI Client card. Avoid slots farthest from the client card.

Beige G3 with Magma (PCI-7-TX-400V) Expansion Chassis

Magma (PCI-7-TX-400V) Expansion Chassis
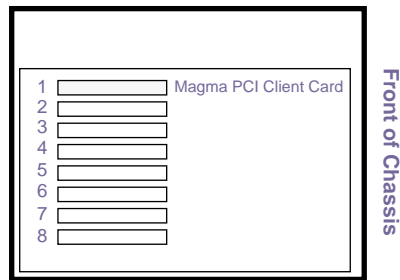
Choose configuration...	If you have...
1	xr, 1 SCSI, up to 2 graphics cards
2	le-xs
3	xr, 2 SCSI, 2 graphics cards
4	xr, 1 graphics card, Gaudi or Effetto Pronto

Slot Assignments: Beige G3 with Magma

Slot	Configuration 1	Configuration 2	Configuration 3	Configuration 4
Chassis 1	Magma Client	Magma Client	Magma Client	Magma Client
Chassis 2	P6000/Vincent 601/ Vincent™	SCSI	SCSI	P6000/Vincent 601/ Vincent™
Chassis 3	E6000/HDRfx[1]	2nd SCSI	2nd SCSI	E6000/HDRfx[1]
Chassis 4	SCSI	Empty	Empty	Effetto Pronto or Gaudi[2]
Chassis 5	Graphics	Graphics	Graphics	SCSI
Chassis 6	2nd Graphics	2nd Graphics	Graphics	Graphics
Chassis 7	Empty	Empty	Empty	Empty
Chassis 8	Empty	Empty	Empty	Empty
G3 Graphics	Built in Video Personality	Built in Video Personality	Built in Video Personality	Built in Video Personality
G3 1	Magma PCI Host	P6000/Vincent 601/ Vincent™	P6000/Vincent 601/ Vincent™	Magma PCI Host
G3 2	Empty	E6001/SD600 or empty	E6000/HDRfx[1]	Empty
G3 3	Empty	Magma PCI Host	Magma PCI Host	Empty

[1]*If you have the SDI Option, the SD600 daughter card is attached to the E6000 card.*
[2]*Gaudi was not tested with Media 100 Version 6.0. Use Gaudi only with Version 5.5 or lower.*

NOTE In an expansion chassis, without the E6000/HDRfx, the P6000/Vincent 601/Vincent™ must be in CPU slots.

Blue and White G3 Configurations

Media 100 Inc. has approved the blue and white G3/350, G3/400, and G3/450 in conjunction with all models of Media 100.

- The G3/350 comes standard with an internal ATA drive and no SCSI controller. We have approved the ATTO Express PCI UL2S, ATTO Express PCI UL2D, or the Adaptec 2940U2W in that system.

- The G3/400 comes standard with an internal 6- or 12-GB ATA drive and no SCSI. We have approved the ATTO Express PCI UL2S, ATTO Express PCI UL2D, or the Adaptec 2940U2W in that system.

- The G3/450 comes standard with an internal SCSI drive that is connected to an Adaptec 2940U2B PCI host bus adapter. Additional disk drives may be connected to that adapter.

- If you order a custom-built system, you should follow the configuration guidelines based on whether there is an ATA or SCSI internal disk drive.

- To ensure correct performance, turn off all "ATI extensions."

- If Bad Video Frame errors occur during Master to Tape, close the Edit Suite window in the Media 100 application.

NOTE   Support for the blue and white G3 requires Media 100 software Version 5.5.1 or higher and a system software update from Apple. Specific information on how to obtain these updates are available at http://www.media100.com/product/m100/bluewhite/bluewhitecompat.html.

Blue and White G3 CPUs

- G3/350

- G3/400

- G3/450

Blue and White G3 Graphics Cards

- ATI Nexus GA

- ATI Rage 128 (installed within all models directly from Apple)

- ATI Xclaim 3D Pro (do not use in an expansion chassis)

- IXMicro 3D Ultimate Rez

- IXMicro Pro Rez

Blue and White G3 SCSI Cards

- Adaptec 2940U2B (factory installed in Ultra SCSI models). Do not use with CharisMac 2.0.1g

- Adaptec 2940U2W

- ATTO Express PCI UL2S

- ATTO Express PCIUL2D

Blue and White G3 Media 100 Hardware

- Vincent 601, P6000

- HDRfx, E6000, E6001

- DV600 (attached to P6000)

- SD600 (attached to E6000/E6001)

Blue and White G3 Dual Monitor

- Media 100 xr – due to the number of PCI slots, dual-monitor configurations are not possible without an expansion chassis. See "Blue and White G3 and Media 100 xr Expansion Chassis Configurations" on page 25 for configurations.

- Media 100 xs – to handle the additional bandwidth necessary for dual monitors, bus down the transfer rate of the SCSI controller to 20MB/second (see "Slowing Synchronous Transfer Rates" on page 8), and only use the Griffin gPort for machine control. It is also recommended that you keep the Edit Suite and Program windows in the primary monitor.

- Media 100 le-xe – at lower data rates (200 KB and less) the G3 PCI bus can handle the additional bandwidth required for a second graphics card without slowing down the synchronous transfer rate of the SCSI controller.

Blue and White G3 Serial Adapters (for machine control)

- Keyspan USA-28 v. 1.5.1 (not recommended with xs dual-monitor configurations)

- Keyspan USA-28x v. 1.1.1 (not recommended with xs dual-monitor configurations)

- Griffin gPort v. 1.0.1 (This adapter uses the internal modem port in the blue and white systems. Therefore, you cannot use an internal modem with it.)

Blue and White G3 Slot Assignment Configurations

Blue and White G3 Power Macintosh
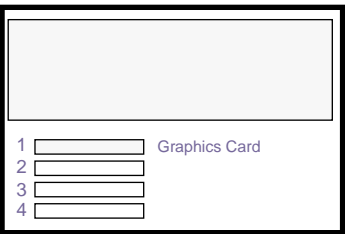
Slot Assignments: Blue and White G3

Slot	xr Configuration	le-xs Configuration
1	ATI Graphics (factory installed)	ATI Graphics (factory installed)
2	P6000/Vincent 601	P6000/Vincent 601

Slot Assignments: Blue and White G3 *(Continued)*

Slot	xr Configuration	le-xs Configuration
3	E6000/HDRfx (SD600 is attached with SDI Option)	2nd Graphics, Blue Ice, Power Suite 1.0 (Ultra Ice[1]), E6001 with SD600 (SDI Option), or Empty
4	SCSI	SCSI

[1]*Ultra Ice/Power Suite configurations are only approved for G3 ATA models. Power Suite configurations were tested with P6000 hardware. Our test results have remained consistent when comparing Vincent 601 and P6000 hardware performance.*

Blue and White G3 and Media 100 xr Expansion Chassis Configurations

This section describes Media 100 xr configurations in the following expansion chassis:

■ SBS Bit 3 Expansion Chassis (ME-21 Minitower and the ME-22 Rackmount), 7 slot. See

■ SBS Bit 3 Expansion Chassis (Model ME-34), 4 slot, desktop. See

■ Magma Expansion Chassis (PCI-7-TX-400V), 7 slot. See

Bit 3 (ME-21 and ME-22) Expansion Chassis Configuration

Bit 3 (ME-21/22) Expansion Chassis
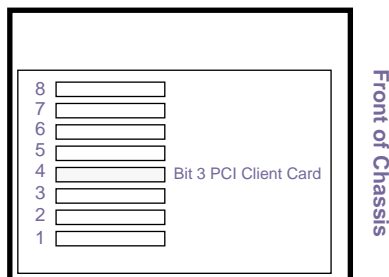
Slot Assignments: Blue and White G3 with Internal ATA Drive

Slot	Configuration
Chassis 1	P6000/Vincent 601
Chassis 2	E6000/HDRfx (SD600 is attached with SDI Option)
Chassis 3	SCSI
Chassis 4	Bit 3 PCI Client
Chassis 5	2nd Graphics or Empty
Chassis 6	Empty
Chassis 7	Empty

Slot Assignments: Blue and White G3 with Internal ATA Drive *(Continued)*

Slot	Configuration
Chassis 8	Empty
G3 1	ATI Rage 128 (factory installed)
G3 2	Bit 3 PCI Host
G3 3	Empty
G3 4	Empty

Bit 3 (ME-34) Expansion Chassis Configuration

Bit 3 (ME-34) Expansion Chassis
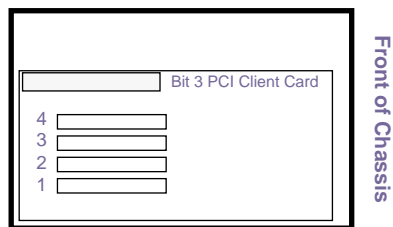
Slot Assignments: Blue and White G3 with Internal ATA Drive

Slot	Configuration
Chassis 1	P6000/Vincent 601
Chassis 2	E6000/HDRfx (SD600 is attached with SDI Option)
Chassis 3	Empty
Chassis 4	SCSI
G3 1	ATI Rage 128 (factory installed)
G3 2	Bit 3 PCI Host
G3 3	Blue Ice
G3 4	2nd Graphics

Magma (PCI-7-TX-400V) Expansion Chassis Configuration

Magma (PCI-7-TX-400V) Expansion Chassis
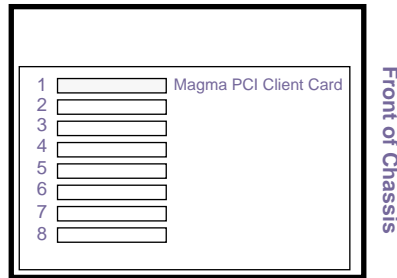
Slot Assignments: Blue and White G3

Slot	Internal ATA Drive Configuration	Ultra 2 SCSI Configuration
Chassis 1	Magma Client	Magma Client
Chassis 2	P6000/Vincent 601	P6000/Vincent 601
Chassis 3	E6000/HDRfx (SD600 is attached with SDI Option)	E6000/HDRfx (SD600 is attached with SDI Option)
Chassis 4	SCSI	SCSI
Chassis 5	Graphics	2nd graphics
Chassis 6	Empty	Empty
Chassis 7	Empty	Empty
Chassis 8	Empty	Empty
G3 1	ATI Rage 128 (factory installed)	ATI Rage 128 (factory installed)
G3 2	Magma PCI Host	Magma PCI Host
G3 3	Empty	Empty
G3 4	Power Suite 1.0 (Ultra Ice[1]) or Empty	Adaptec 2940U2B

[1]*Power Suite configurations were tested with P6000 hardware. Our test results have remained consistent when comparing Vincent 601 and P6000 hardware performance. Power Suite 4.0.3 is NOT approved in an expansion chassis configuration.*

▼ G4 Configurations

Power Mac G4 Models (Digital Audio)

The Power Mac G4 Digital Audio systems have processor speeds of 466 MHz, 533 MHz, 667 MHz, 733 MHz, and dual 533 MHz.

Media 100 tested and approved the single processor G4/533, G4/733 and the dual G4/533 models. The G4/466 and G4/667 were approved based on the testing of the G4/533 and G4/733.

Power Mac G4 Slot Assignments (Digital Audio)

Power Mac G4 Digital Audio Systems

Slot	i/le-i/xs without RealTimeFX	i/le-i/xr	i/le-i/xr with E6000 and BlueICE Ultra
AGP	NVIDIA Geforce2 MX	NVIDIA GeForce2 MX	AGP
PCI 1	P6000 or Vincent 601	2nd graphics card or Empty	P6000 or Vincent 601
PCI 2	BlueICE Ultra or E6001 +SD600	P6000 or Vincent 601	E6000 or E6001 +SD600 or HDRfx
PCI 3	2nd graphics card or Empty	E6000 or E6001 +SD600 or HDRfx	BlueICE Ultra
PCI 4	SCSI	SCSI	SCSI

Magma 7-Slot ATX Tower Model P7T

The Magma P7T is a 32-bit ATX PCI/PCI expansion system with a 300 W power supply and a one meter, 68-pin round cable.

Media 100 i/le-i/xr with Magma 7-Slot ATX Tower Model P7T

Slot	i/le-i/xr Configuration with RealTimeFX
Chassis 1	P6000
Chassis 2	E6000 +SD 600 or HDRfx
Chassis 3	Graphics card
Chassis 4	SCSI
Chassis 5	Empty
Chassis 6	Empty
Chassis 7	Empty
G4 1	AGP NVIDIA Geforce 2
G4 2	2nd Graphics Card or Empty
G4 3	BlueICE Ultra
G4 4	Empty
G4 5	Expansion Host card

Power Mac G4 (Digital Audio) System Requirements

Software requirements for Media 100 i Version 7.5.1.

- Mac OS 9.2.2, 9.2.1, 9.2, 9.1, 9.0.4.
- QuickTime 6.0, 5.0.2

Software requirements for Media 100 i Version 7.5.

- Mac OS 9.2.2, 9.2.1, 9.2, 9.1, 9.0.4.
- QuickTime 5.0.2, 4.1.2

Software requirements for Media 100 i Version 7.0.2

- Mac OS 9.1, 9.0.4.
- QuickTime 4.1.2

Power Mac G4 (Digital Audio) Computers

- G4/733-MHz
- G4/667-MHz
- Dual G4/533 -MHz
- G4/533-MHz
- G4/466-MHz

Power Mac G4 (Digital Audio) Graphics Cards

- NVIDIA GeForce2 MX AGP
- ProMax DH-MAX
- ATI Rage 128 Pro-PCI
- ATI Radeon PCI

NOTE   The ATI Rage 128 Pro-PCI can only be purchased directly from Apple as a second graphics card option.

Power Mac G4 (Digital Audio) SCSI Cards

- ATTO ExpressPCI UL2D
- ATTO ExpressPCI UL3D
- ATTO ExpressPCI UL3S

Power Mac G4 (Digital Audio) Media 100 Hardware

- Vincent 601, P6000
- HDRfx, E6000
- DV600 (DV Option)
- SD600 (SDI Option)

Power Mac G4 (Digital Audio) Machine Control

- Xircom PGMSD8
- Keyspan twin serial adapter USA-28X V1.8

Media 100 Lossless Option (Digital Audio) Configurations

The Media 100 Lossless Option is approved in the Power Mac G4 Digital Audio system.

Lossless Option (Digital Audio) Slot Assignments

Lossless Option in G4 Digital Audio Systems

Slot	i/le-i/xs without RealTimeFX	i/le-i/xr with RealTimeFX
AGP	Graphics card	Graphics card
PCI 1	P6000 lossless capable	P6000 lossless capable
PCI 2	Empty or 2nd graphics card	E6000 or E6001 +SD600 or HDRfx
PCI 3	Empty or BlueICE Ultra	Empty or BlueICE Ultra
PCI 4	SCSI	SCSI

NOTE   The Lossless Option configuration is not compatible with an expansion chassis.

Lossless Option (Digital Audio) Computers

- G4/733-MHz
- Dual G4/533-MHz
- G4/533-MHz
- G4/466-MHz

Lossless Option (Digital Audio) Graphics Cards

- NVIDIA GeForce
- ProMax DH-Max
- ATI Rage 128 Pro
- ATI Radeon PCI (for dual VGA monitor support)

Lossless Option (Digital Audio) SCSI Controllers

- Adaptec 39160
- ATTO ExpressPCI UL3D

Lossless Option Disk Drive Configurations

The lossless CODEC varies, and the actual data rate depends on the complexity of your images. The minimum requirement for lossless storage is a four-drive, 10,000 RPM disk array connected to an Ultra3 SCSI controller. The benchmark rate should be 70 MB/sec. For optimal performance, Media 100 recommends six to eight 10,000 or 15,000 RPM drives striped across two Ultra3 SCSI channels.

Power Mac G4 Models (Gigabit Ethernet)

The Power Mac G4 (Gigabit Ethernet) systems have processor speeds of 400 MHz, dual 450, and 500 MHz. Systems ship with an internal ATA drive and a DVD (ROM or RAM) drive with a dual-channel Ultra3 SCSI adapter. Media 100 recommends one bus for the system and a second for your media arrays.

Slot Assignments: Power Mac G4 Gigabit Ethernet

Slot	i/le-i/xs without RealTimeFX (AGP only)	i/le-i/xs without RealTimeFX (PCI only)	i/le-i/xr with RealTimeFX (PCI or AGP)
AGP	Graphics card (factory installed)	Graphics card (factory installed)	Graphics card (factory installed)
PCI 1	P6000 or Vincent 601	P6000 or Vincent 601	P6000 or Vincent 601
PCI 2	2nd graphics card, E6001 with SD600 (SDI Option) or HDRfx or Power Suite 4.0.3 (BlueICE Ultra) or Empty	2nd graphics card, E6001 with SD600 (SDI Option) or HDRFX or Power Suite 1.0 (BlueICE Ultra[1]) or Empty	E6000 with SD600 (SDI Option) or HDRfx
PCI 3	SCSI	SCSI	SCSI

[1]Power Suite configurations were tested with P6000 hardware. Our test results have remained consistent when comparing Vincent 601 and P6000 hardware performance.

NOTE   Support for the G4 Gigabit Ethernet models requires a minimum of Media 100 Version 6.0.3. For the Media 100 version 6.0.3 update go to http://www.media100.com/downloads.asp

Power Mac G4 (Gigabit Ethernet) Computers

- Dual G4/500-MHz AGP
- Dual G4/450-MHz AGP
- G4/400-MHz AGP

Power Mac G4 (Gigabit Ethernet) System Requirements

Software requirements for Media 100 i Version 7.5.1.

- Mac OS 9.2.2, 9.2.1, 9.2, 9.1, 9.0.4.
- QuickTime 6.0, 5.0.2

Software requirements for Media 100 i Version 7.5.

- Mac OS 9.2.2, 9.2.1, 9.2, 9.1, 9.0.4.
- QuickTime 5.0.2, 4.1.2

Software requirements for Media 100 i Version 7.0.2

- Mac OS 9.1, 9.0.4.
- QuickTime 4.1.2

Software requirements for Media 100 i Version 7.0.1, 7.0, 6.0.3.

- Mac 9.0.4.
- QuickTime 4.1.2

Power Mac G4 (Gigabit Ethernet) Graphics Card

■ ProMax DH-MAX

■ ATI Rage 128Pro (OEM installed)

■ ATI Rage 128-PCI

■ Formac Proformance3 PCI

NOTE   ATI extensions must be ON for the G4 Gigabit Ethernet models.

Power Mac G4 (Gigabit Ethernet) SCSI Cards

■ Adaptec 2940U2W (do not use in an expansion chassis with second ATI graphics card)

■ Adaptec 39160

■ ATTO ExpressPCI UL2D (not recommended with OS 8.6)

■ ATTO ExpressPCI UL2S

■ ATTO ExpressPCI UL3D

■ ATTO ExpressPCI UL3S

Power Mac G4 (Gigabit Ethernet) Media 100 Hardware

■ Vincent 601, P6000

■ HDRfx, E6000, E6001

■ DV600 (attached to P6000)

■ SD600 (attached to E6000 or E6001)

Power Mac G4 Models (AGP, PCI)

Media 100 has approved the following Apple Power Mac G4 configurations:

■   The G4/500 AGP, G4/450 AGP, and G4/400 AGP models

AGP models come with an internal ATA drive, an AGP graphics card, and AGP card slot instead of the PCI graphics card and 64-bit PCI card slot. Add a second monitor with a PCI graphics card.

■   The G4/400 PCI and G4/350 PCI models

These models come with a PCI graphics card and a 64-bit PCI card slot (same as the blue and white G3).

NOTE   Support for the G4 AGP and PCI requires a minimum of Media 100 Version 5.5.3. For the Media100 version 5.5.3 update go to http://www.media100.com/downloads.asp

Power Mac G4 (AGP and PCI) Slot Assignments

Slot Assignments: Power Mac G4 AGP and PCI

Slot	i/le-i/xs without RealTimeFX (AGP only)	i/le-i/xs without RealTimeFX (PCI only)	i/le-i/xr with RealTimeFX (PCI or AGP)
AGP	Graphics card (factory installed)	Graphics card (factory installed)	Graphics card (factory installed)
PCI 1	P6000 or Vincent 601	P6000 or Vincent 601	P6000 or Vincent 601
PCI 2	2nd graphics card, E6001 with SD600 (SDI Option) or HDRfx or Power Suite 4.0.3 (BlueICE Ultra) or Empty	2nd graphics card, E6001 with SD600 (SDI Option) or HDRFX or Power Suite 1.0 (BlueICE Ultra[1]) or Empty	E6000 with SD600 (SDI Option) or HDRfx
PCI 3	SCSI	SCSI	SCSI

[1]Power Suite configurations were tested with P6000 hardware. Our test results have remained consistent when comparing Vincent 601 and P6000 hardware performance.

Power Mac G4 (AGP and PCI) Computers

- G4/500-MHz AGP

- G4/450-MHz AGP

- G4/400-MHz AGP

- G4/400-MHz PCI

- G4/350-MHz PCI

Power Mac G4 (AGP and PCI) System Requirements

Software requirements for Media 100 i Version 7.5.1.

- Mac OS 9.2.2, 9.2.1, 9.2, 9.1, 9.0.4.

- QuickTime 6.0, 5.0.2

Software requirements for Media 100 i Version 7.5.

- Mac OS 9.2.2, 9.2.1, 9.2, 9.1, 9.0.4.

- QuickTime 5.0.2, 4.1.2

Software requirements for Media 100 i Version 7.0.2

- Mac OS 9.1, 9.0.4.

- QuickTime 4.1.2

Software requirements for Media 100 i Version 7.0.1, 7.0, 6.0.3.

- Mac OS 9.0.4.

- QuickTime 4.1.2

Software requirements for Media 100 i Version 6.0.2.

- Mac OS 9.0.4, 9.0.2, 9.0.

- QuickTime 4.1.

Software requirements for Media 100 i Version 6.0.1.

- Mac OS 9.0.2, 9.0.

- QuickTime 4.1.

Software requirements for Media 100 i Version 6.0.

- Mac OS 9.0.2, 9.0, 8.6 (8.1 or higher is approved, but 8.6 or higher is recommended)

- QuickTime 4.1 (Only with Mac OS 9.0 or 9.0.2), 4.0.3, 4.0.2. 4.0.1.

Software requirements for Media 100 Version 5.5.3.

- Mac OS 9.0 (On G4s with QuickTime 4.1 only) 8.6

- QuickTime 4.1 (Only with Mac OS 9.0), 4.0.3, 4.0.2, 4.0.1

Power Mac G4 (AGP and PCI) Graphics Cards

- ATI Nexus 128 PCI

- ATI Rage 128 GL AGP card (AGP slot) – G4/450 AGP and G4/400 AGP only

- ATI Rage Orion

- ATI Rage 128 PCI

NOTE ATI extensions must be ON for the G4 AGP models and OFF for the G4 PCI models.

- Formac ProFormance3 PCI

NOTE Do not activate 3D glasses when using the Formac ProFormance3 card. Running 3D games with the Formac 3D glasses can cause system errors.

Power Mac G4 (AGP and PCI) SCSI Cards

- Adaptec 2940U2W (do not use in an expansion chassis with second ATI graphics card)

- Adaptec 39160

- ATTO ExpressPCI UL2D (not recommended with OS 8.6)

- ATTO ExpressPCI UL2S

- ATTO ExpressPCI UL3D

- ATTO ExpressPCI UL3S

Power Mac G4 (AGP and PCI) Media 100 Hardware

- Vincent 601, P6000

- HDRfx, E6000, E6001

- DV600 (attached to P6000)

- SD600 (attached to E6000 or E6001)

Power Mac G4 (AGP and PCI) Dual Monitor

- For Media 100 i/xs on a G4/400 PCI or G4/350 PCI system, bus down the SCSI transfer rate to 20 MB/sec. See "Slowing Synchronous Transfer Rates" on page 8.

NOTE Busing down to 20 MB/sec does not apply to new Ultra160 SCSI controllers UL3S and UL3D.

- Always keep the Edit Suite window in the primary monitor.

- Do not move windows on your second monitor while playing a program.

Power Mac G4 (AGP and PCI) Machine Control

- Keyspan twin serial adapter USA-28x v. 1.7

- Griffin gPort 1.0.1 (Required for G4/400 PCI or G4/350 PCI in a dual-monitor i/xs configuration; not compatible with the G4/450 AGP or G4/400 AGP system.)

- XirCom (PGMSD8) USB serial adapter driver Version 2.0.2

Power Mac G4 (AGP and PCI) Expansion Chassis Configurations

This section describes approved slot configurations for G4 systems with expansion chassis:

- SBS Bit 3 4 slot – "Bit 3 ME-34 Configuration" on page 37
- SBS Bit 3 7 slot – "Bit 3 ME-21 Configuration" on page 38
- SBS Bit 3 7 slot – "Bit 3 ME-31/32 Configuration" on page 38
- Magma 7 slot – "Magma PCI-7-TX-400V or PCI-7-TX-300V Configuration" on page 39

Bit 3 ME-34 Configuration

Slot Assignments: Power Mac G4 PCI/AGP Systems

Slot	i/le-i/xs without RealTimeFX	i/le-i/xr with RealTimeFX
Chassis 1	Graphics card	SCSI
Chassis 2	SCSI	Graphics card
Chassis 3	Empty	E6000 with SD600 (SDI option) or HDRfx
Chassis 4	Empty	P6000 or Vincent 601
G4 1	Graphics card (factory installed)	Graphics card (factory installed)
G4 2	P6000 or Vincent 601	Empty[1]
G4 3	E6001 with SD600 (SDI Option) or HDRfx or Empty	Empty
G4 4	Bit 3 Host	Bit 3 Host

[1]If you are using an Adaptec 2940U2W card, place the ATI graphics card in the G4 slot 2.

Bit 3 ME-21 Configuration

Slot Assignments: Power Mac G4 AGP/PCI Systems

Slot	i/le-i/xs without RealTimeFX	i/lei-i/xr with RealTimeFX
Chassis 1	SCSI	P6000 or Vincent 601
Chassis 2	Empty	E6000 with SD600 (SDI Option) or HDRfx
Chassis 3	Empty	SCSI
Chassis 4	Bit 3 PCI Client	Bit 3 PCI Client
Chassis 5	Graphics card	Graphics card
Chassis 6	Empty	Empty
Chassis 7	Empty	Empty
Chassis 8	Empty	Empty
G4 1	Graphics card	Graphics card
G4 2	P6000 or Vincent 601	Bit 3 PCI Host
G4 3	Empty or E6001 with SD600 (SDI Option) or HDRfx	Empty or Graphics card
G4 4	Bit 3 PCI Host	BlueICE Ultra[1]

[1]Power Suite 4.0.3 or ICE'd After Effects

Bit 3 ME-31/32 Configuration

Slot Assignments: Power Mac G4 AGP/PCI Systems

Slot	i/xr Configuration	Non-Real Time Configurations
Chassis 1	SCSI	SCSI
Chassis 2	Graphics card	Graphics card
Chassis 3	P6000 or Vincent 601	Empty
Chassis 4	E6000 with SD600 (SDI Option) or HDRfx	Empty
Chassis 5	Empty	Empty
Chassis 6	Empty	Empty
Chassis 7	Empty	Empty
G4 1	Graphics card (factory installed)	Graphics card (factory installed)
G4 2	Empty	P6000 or Vincent 601
G4 3	Empty	Empty or E6001 with SD600 (SDI Option) or HDRfx
G4 4	Bit 3 Host	Bit 3 Host

Magma PCI-7-TX-400V or PCI-7-TX-300V Configuration

Slot Assignments: Power Mac G4 AGP/PCI Systems

Slot	i/xr Configuration	Non-Real Time Configurations
Chassis 1	Magma Client	Magma Client
Chassis 2	P6000 or Vincent 601	SCSI
Chassis 3	E6000 with SD600 (SDI Option) or HDRfx	Graphics card
Chassis 4	SCSI	Empty
Chassis 5	Graphics card	Empty
Chassis 6	Empty	Empty
Chassis 7	Empty	Empty
Chassis 8	Empty	Empty
G4 1	Graphics card (factory installed)	Graphics card (factory installed)
G4 2	Empty	P6000 or Vincent 601
G4 3	Empty	Empty or E6001 with SD600 (SDI Option) or HDRfx
G4 4	Magma Host	Magma Host

Magma 7-Slot ATX Tower Model P7T Configuration

This expansion chassis is a 32-bit ATX PCI/PCI system with a 300 W power supply and a one meter cable

Slot Assignments: Power Mac G4 AGP/PCI Systems

Slot	i/le-i/xr with RealTimeFX
Chassis 1	SCSI
Chassis 2	P6000 or Vincent 601
Chassis 3	E6000 with SD600 (SDI Option) or HDRfx
Chassis 4	Empty
Chassis 5	Empty
Chassis 6	Empty
Chassis 7	Empty
Chassis 8	Empty
G4 1	AGP Graphics card
G4 2	Magma Host
G4 3	Graphics card
G4 4	BlueICE Ultra

NOTE   Media 100 discovered the i/xr configuration with ICE hardware does not work in the G4 Gigabit Ethernet systems. The only work-around solutions is to run a single graphics card. Media 100 is testing several solution

▼ RFE Peripherals

Media 100 Inc. delivers a turnkey Remote Field Editing (RFE) system based on the Apple PowerBook G3. We have tested and approved the following additional peripherals with the RFE:

- The RFE has a single channel Ultra 2 controller with two internal drives. We have successfully tested an external iStor array connected to the external port of the SCSI controller. We do not recommend connecting any more than one additional device.

- For a two-monitor configuration, you may connect a monitor to the monitor port of the G3 PowerBook. It is important to keep the Edit Suite in the primary monitor on the PowerBook.

- The RFE Chassis can also be connected to a desktop PowerPC system. To do this, you will need to order the PCI host controller card from Magma. Part #PCIHIF68.

▼ Storage Solutions

Below are approved configurations by drive vendors that specialize in providing quality storage solutions for digital video.

Medéa disk arrays are designed to be a low cost solution for video applications. Media 100 has approved a couple of models and is continuing to test new Medéa drives. Our testing has shown that these drives are acceptable for Media 100 models le through xr. It is important to note that for demanding video programs and intense audio, Media 100 recommends a higher-performing array consisting of 4 10,000 rpm Ultra2 SCSI drives.

NOTE   As long as your computer can handle the increased throughput from the storage solutions, the solutions listed in each table will work for lower models. For example, if you have a Media 100 xe, you can use the solutions listed in the Media 100 xs and Media 100 xr tables.

Media 100 Inc. iStor disk arrays are approved for all models. iStor disk arrays feature Seagate 10,000 rpm drives. For details about iStor specifications, see http://www.media100.com/product/istor/istor_specs.html.

iStor disk arrays are compatible with the following SCSI controllers. ATTO SCSI controllers are shipped with ATTO ExpressRAID 2.3:

■ ATTO UL2S

■ ATTO UL2D

■ Adaptec Power Domain 2940U2W

iStor Disk Array Configurations

iStor Model	Capacity	Media 100 Model	Data Rate (KB/frame)	RealTimeFX Support
iStor 218	36GB	le-xr	300KB NTSC, 360KB PAL	Limited[1]
iStor 418	72GB	le-xr	300KB NTSC, 360KB PAL	Yes
iStor 236	72GB	le-xr	300KB NTSC, 360KB PAL	Limited[1]
iStor 436	144GB	le-xr	300KB NTSC, 360KB PAL	Yes

[1]*Four drive iStor disk arrays are recommended for systems with RealTimeFX. Two drive iStor disk arrays are capable of playing 300kb NTSC/360kb PAL with limited RealTimeFX. Using two drive arrays when playing back multiple real-time effects including titles, transitions, audio equalizations and cross fades simultaneously could incur performance problems.*

NOTE   Connecting non-LVD SCSI devices will drop the performance of the LVD SCSI bus and is not recommended.

NOTE   The revisions of the drive mechanisms are subject to change without notice. Different firmware can affect the performance of the drive. Usually the newer the revision, the better the performance since the drive manufacturer may enhance the product or fix problems.

Media 100 has listed some two-drive arrays for xr. Since individual drives are becoming faster, it is feasible to run xr at 300KB on a two-drive array. However, based on data rates and the complexity of the program, you may need a four-drive array.

Storage Solutions: Media 100 xr

Manufacturer	Model	Description	Drive Mechanism	Configuration
Computech International	4 drive tower	4 9GB Ultra Wide 10,000 rpm drives	Seagate ST19101W	4 drives striped across 2 channels
Cybernetics	2 CY-25XP	8 6GB Ultra Wide 5,400 rpm drives	Seagate	4 drives striped together with Raid controller and then software striped with another unit
Cybernetics	CY-50XP	8 6GB Ultra Wide 5,400 rpm drives	Seagate	8 drives striped together with 2 Raid controllers
Data Direct Networks	Enterprise 8 24GB	6 4GB Ultra Wide 7,200 rpm drives on a split backplane	Seagate ST34501W	6 drives striped across 2 channels
Data Direct Networks	Enterprise 8 36GB	4 9GB Ultra Wide 7,200 rpm drives on a split backplane	Seagate ST19171W	4 drives striped across 2 channels
Data Direct Networks	Enterprise 8 54GB	6 9GB Ultra Wide 7,200 rpm drives on a split backplane	Seagate ST19171W	6 drives striped across 2 channels
Data Direct Networks	Enterprise 8 72GB	8 9GB Ultra Wide 7,200 rpm drives on a split backplane	Seagate ST19171W	8 drives striped across 2 channels
DLI	Dilog MicroVault 18G	Hardware Raid 0 subsystem	Seagate or IBM	Raid 0 hardware Raid controller
Eurologic	Voyager 3110	6 18GB Ultra2 10,000 rpm drives	Seagate ST 318203LC	6 drives striped on 2 channels with ATTO Express PCI-UL2D
Eurologic	Voyager Storage Array - 24 GB	6 4GB UltraWide 7,200 rpm drives in a split bus tower	Seagate ST 34501W	6 drives striped across 2 channels with ATTO Express PCI-MCU
Eurologic	Voyager Storage Array - 36 GB	4 9GB UltraWide 7,200 rpm drives in a split bus tower	Seagate ST 19101W	4 drives striped across 2 channels with ATTO Express PCI-MCU
Eurologic	Voyager Storage Array - 54 GB	6 9GB UltraWide 7,200 rpm drives in a split bus tower	Seagate ST 19171W	6 drives striped across 2 channels with ATTO Express PCI-MCU
Hammer Storage	SledgePro12LVD	4 to 12 9GB Ultra2 10,000 rpm drives	Seagate ST39102LC	4 to 12 drives striped across 2 channels with a Jackhammer SC
Hammer Storage	SledgePro2 SL/ 7400 UWD	4 4GB Ultra Wide 7,200 rpm drives	Seagate ST39173WD	4 drives striped across 2 channels with a Jackhammer SC

Storage Solutions: Media 100 xr *(Continued)*

Manufacturer	Model	Description	Drive Mechanism	Configuration
Hammer Storage	SledgePro2LVD	2 18GB 10,000 rpm drives on a single bus[1]	Seagate (Cheetah) ST 118202LC	2 drives striped across 1 channel with a Jackhammer LVD single chl controller (Remus Lite 1.4)
Hammer Storage	SledgePro2LVD	4 18 GB Ultra2 7,200 rpm drives	Seagate ST118273LC	4 drives striped across 2 channels with a Jackhammer SC
Hammer Storage	SledgePro2LVD	4 9GB Ultra2 10,000 rpm drives	Seagate ST39102LC	4 drives 2 channels with a Jackhammer SC differential (Rev B)
Hammer Storage	SledgePro12LVD	2-12 9GB Ultra2 10,000 rpm drives	Seagate ST39103LC	2-12 drives striped across 1 channel with Ultra2 JackHammer
Hammer Storage	SledgePro12LVD	2-12 18GB Ultra2 10,000 rpm drives	Seagate ST318203LC	2-12 drives striped across 1 channel with Ultra2 JackHammer
Hammer Storage	SledgePro2LVD	2 9GB Ultra2 10,000 rpm drives	Seagate ST39103LC	2 drives striped across 1 channel with Ultra2 JackHammer
Hammer Storage	SledgePro2LVD	2 18GB Ultra2 10,000 rpm drives	Seagate ST318203LC	2 drives striped across 1 channel with Ultra2 JackHammer
JEMS Data	JEMINI Blox	2 9GB Ultra2 10,000 rpm drives on a single LVD bus	Seagate ST19101LW	2 drives striped together on a single channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Jaguar	2 18.4 GB 7200 rpm on a single LVD bus	Hitachi DK32AH-18	2 drives striped on 1 channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Jaguar	4 18.4 GB 7200 rpm on a single LVD bus	Hitachi DK32AH-18	4 drives striped on 1 channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Jaguar	2 18GB Ultra2 10,000 rpm on a single LVD bus	Seagate ST118202 LC	2 drives striped across 1 channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Jaguar	2 9GB Ultra2 10,000 rpm drives on a single LVD bus	Seagate ST39102LC	2 drives striped across 1 channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Jaguar	4 18GB Ultra2 10,000 rpm drives on a single LVD bus	Seagate ST118202LC	4 drives striped across 1 channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Jaguar	4 36GB Ultra 2 LVD 7200 rpm on a dual bus	IBM DRHS36D Ultrastar 36XP	4 drives striped across 1 channel with an ATTO UL2D
JEMS Data	JEMINI Jaguar	4 36GB Ultra 2 (LVD 7200 rpm on a single bus	IBM DRHS36D Ultrastar 36XP	4 drives striped across 1 channel with an ATTO UL2D
JEMS Data	JEMINI Jaguar	4 9GB Ultra 2 7,200 rpm drives on a single LVD bus	Seagate ST39173LC	4 drives striped across 1 channel with ATTO Express PCI-UL2S

Storage Solutions: Media 100 xr *(Continued)*

Manufacturer	Model	Description	Drive Mechanism	Configuration
JEMS Data	JEMINI Jaguar	4 9GB Ultra2 10,000 rpm drives on a single LVD bus	Seagate ST39102LC	4 drives striped across 1 channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Jaguar	4 9GB Ultra2 7,200 rpm drives on a single LVD bus	Seagate ST39173 LC	4 drives striped across 1 channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Voyager 24	6 4GB Ultra Wide 7,200 rpm drives in a split bus tower	Seagate ST34501W	6 drives striped across 2 channels with ATTO Express PCI-MCU
JEMS Data	JEMINI-UWC-36	4 9GB Ultra Wide 10,000 rpm drives in single enclosure	Seagate ST19101W (Cheetah)	4 drives striped across 2 channels with ATTO Express PCI-MCU
JEMS Data	JEMINI-UWF-72	4 18GB Ultra Wide 7,200 rpm drives in single enclosure	Fujitsu 3182SP	4 drives striped across 2 channels with ATTO Express PCI-MCU
JEMS Data	JEMINI-UWS-16	4 4GB UltraWide 7,200 rpm drives in single enclosure	Seagate ST34501W (Cheetah)	4 drives striped across 2 channels with ATTO Express PCI-MCU
JEMS Data	JEMINI-UWS-36 JEMINI-UWF-36	4 9GB Ultra Wide 7,200 rpm drives in single enclosure	Seagate ST19171W (Barracuda) Fujitsu 3091SP	4 drives striped across 2 channels with ATTO Express PCI-MCU
JEMS Data	Jaguar	2 73GB Ultra3 7,200 rpm	Seagate ST173404LC	2 drives striped on 1 Ultra3 channel
JEMS Data	Jaguar	4 73GB Ultra 3 7,200 rpm	Seagate ST173404LC	4 drives striped on 1Ultra3 channels
JEMS Data	Jaguar	2 36GB Quantum 10,000 rpm Ultra3	Quantum Atlas V365CA	2 drives striped on 1 Ultra3 channel
JEMS Data	Jaguar	4 36GB Quantum 10,000 rpm Ultra3	Quantum Atlas V365CA	4 drives striped on 2 Ultra3 channel
JEMS Data	Jaguar FC	4 36GB	Seagate ST39102FC	4 drives on 1 FC loop
Medéa	VideoRaid 4/100 SCSI	4 25GB drives	IBM	Hardware Raid. Approved drives must be manufactured after 8/17/99 S/N 408170001 or higher.
Medéa	VideoRaid 6/150 SCSI	6 25GB drives	IBM	Hardware Raid. Approved drives must be manufactured after 8/17/99 S/N 408170001 or higher.
MicroNet Technology	DDV218IDCU2 plus DDV218UPG	4 9GB 7,200 rpm IBM Ultrastar drives in 2 Data Docks	IBM Ultrastar 9 (08L8260)	4 drives striped across 2 channels

Storage Solutions: Media 100 xr *(Continued)*

Manufacturer	Model	Description	Drive Mechanism	Configuration
MicroNet Technology	DDV219IDCU2 plus DDV219UPG	4 9GB 10,000 rpm IBM Ultrastar drives in 2 Data Docks	IBM Ultrastar 9 (08L8260)	4 drives striped across 2 channels
MicroNet Technology	DDV219ISCU2 DDV219IDCU2	2 9GB 10,000 rpm IBM Ultrastar drives in Data Dock	IBM Ultrastar 9 (08L8260)	2 drives striped on 1 channel 2 drives striped across 2 channels
MicroNet Technology	DDV236IDCU2 plus DDV236UPG	4 18GB 7,200 rpm IBM Ultrastar drives in Data Dock	IBM Ultrastar 18 (08L8259)	4 drives striped across 2 channels
MicroNet Technology	DDV237IDCU2 plus DDV237UPG	4 18GB 10,000 rpm IBM Ultrastar drives in 2 Data Docks	IBM Ultrastar 18 (08L8259)	4 drives striped across 2 channels
MicroNet Technology	DDV237ISCU2 or DDV237IDCU2	2 18GB 10,000 rpm IBM Ultrastar drives in Data Dock	IBM Ultrastar 18 (08L8259)	2 drives striped on 1 channel 2 drives striped on 2 channels
MicroNet Technology	DDV237ISCU2 or DDV237IDCU2	2 36GB Ultra2 10,000 rpm drives	IBM Ultrastar 18 (08L8259)	2 drives striped on single channel 2 drives striped on dual channel
MountainGate	Stampede'll	8 bay 2x4 rackmount single ended	Seagate ST19171 W	6 or 8 drives striped across 2 channels
nStor	CR8e 72GB	8 bay Ultra S2S RAID controller subsystem	Seagate ST19101 W	8 drives striped across 2 channels
ProDirect	36GB fixed array	4 9GB Ultra Wide 10,000 rpm drives	Seagate ST19101W	4 drives striped across 2 channels with ATTO PSC-dc
Rorke Data	Max36-FLW Max36-RLW	4 9GB Ultra2 7,200 rpm Fixed 4 9GB Ultra2 7,200 rpm Removable	Seagate ST39173LW	4 drives striped on 2 channels with ATTO Express PCI-DC
Rorke Data	MaxArray 36	4 9GB Ultra2 10,000 rpm drives	Seagate ST39173LC	4 drives striped on a single ATTO Express PCI UL2S
Rorke Data	MaxArray 36	4 9GB UltraWide 7,200 rpm drives	Seagate ST39173LW	4 drives striped across 2 channels with ATTO Express PCI-DC
Rorke Data	MaxArray 36C	4 9GB Ultra Wide 10,000 rpm drives	Seagate ST39102LW	4 drives striped across 2 channels with ATTO Express PCI-DC
Rorke Data	MaxArray 54	6 9GB UltraWide 7,200 rpm drives	Seagate ST39173LW	6 drives striped across 2 channels with ATTO Express PCI-DC
Rorke Data	MaxArray 72	4 18GBUltra2 7,200 rpm drives	Seagate ST118273LW	4 drives striped on a single ATTO Express PCI UL2S
Rorke Data	MaxArray FC	2-8 9GB Fibre Channel drives	Seagate ST39102FC	2, 4, 6, or 8 drives striped

Storage Solutions: Media 100 xr *(Continued)*

Manufacturer	Model	Description	Drive Mechanism	Configuration
Rorke Data	MaxArray-FC-72B or 72C	4 18GB 7,200/10,000 rpm Fibre Channel drives (removable tower)	Seagate ST118273FC or ST118202FC	2 or 4 drives striped across single channel Rorke Data FC HBA
Rorke Data	MaxArray-FC-72B or 72C	8 9GB 7,200/10,000 rpm Fibre Channel drives (removable tower)	Seagate ST31973FC or ST39102FC	2, 4, 6, or 8 drives striped across single channel Rorke Data FC HBA
Rorke Data	MaxArray-LVD-144B or 144C	4 36GB 7,200/10,000 rpm LVD drives (removable tower)	Seagate/IBM	2 or 4 drives striped across single channel Rorke Data LVD HBA
Rorke Data	MaxArray-LVD-144B or 144C	8 18GB 7,200/10,000 rpm LVD drives (tower or rackmount removable)	Seagate ST118273LW/LC or ST118202LW/LC	2, 4, 6, or 8 drives striped across single/dual channel Rorke Data LVD HBA
Rorke Data	MaxArray-LVD-18GE10K	2 9GB Ultra2 10,000 rpm LVD drives	Seagate ST39103LC	2 drives on single LVD channel
Rorke Data	MaxArray-LVD-36B or 36C	4 9GB 7,200/10,000 rpm LVD drives (removable tower)	Seagate ST39173LW/LC or ST39102LW/LC	2 or 4 drives striped across single channel HBA
Rorke Data	MaxArray-LVD-36GE10K	2 18GB Ultra2 10,000 rpm LVD drives	Seagate ST18203LC	2 drives on single LVD channel
Rorke Data	MaxArray-LVD-72B or 72C	4 18GB 7,200/10,000 rpm LVD drives (removable tower)	Seagate ST118273LW/LC or ST118202LW/LC	2 or 4 drives striped across single channel Rorke Data LVD HBA
Rorke Data	MaxArray-LVD-72B or 72C	8 9GB 7,200/10,000 rpm LVD drives (tower or rackmount removable)	Seagate ST31973LW/LC or ST39102LW/LC	2, 4, 6, or 8 drives striped across single/dual channel Rorke Data LVD HBA
Rorke Data	RDD2000-18C	2 9GB Ultra2 10,000 rpm drives	Seagate ST39103LW	2 drives striped on single LVD channel
Rorke Data	RDD2000-36C	2 18GB Ultra2 10,000 rpm drives	Seagate ST118203LW	2 drives striped on single LVD channel
Rorke Data	Max Array FC	4 36GB	Seagate ST39102FC	4 drives on 1 FC loop
Sagitta Performance Systems	EZiRAID	6 9GB Ultra Wide 7,200 rpm drives on a dual bus	IBM DDRS39130W	6 drives striped together Raid 0 across two busses

Storage Solutions: Media 100 xr *(Continued)*

Manufacturer	Model	Description	Drive Mechanism	Configuration
Sagitta Performance Systems	S9000 SSA	6 9GB SSA 7,200 rpm drives	IBM Scorpion 9 GB	6 drives striped together on a single loop
TechExport	Cobra Drive Tower 36GB	4 9GB Ultra Wide 10,000 rpm drives	Seagate ST19101W	4 drives striped across 2 channels
Transoft	9GB FC-AL disk array	6-8 9GB Fibre Channel 7,200 rpm drives	Seagate ST19171FC	6 drives striped together using an Emulex card
xistor	dd.400/xi raid 72GB	4 18GB Ultra Wide 7,200 rpm drives	IBM Ultrastar 18xp	4 drives striped across 2 channels
xistor	dd.400/xi.raid 36GB	2 18GB Ultra Wide 7,200 rpm drives	IBM Ultrastar 18xp	2 drives striped across 2 channels
xistor	dd.400/xi.raid 36GB	4 9GB Ultra Wide 10,000 rpm drives	Seagate ST19101W	4 drives striped across 2 channels

[1]*Because of incompatibility with Raidware 2.1 and xr, we recommend Remus Lite 1.4.*

Storage Solutions: Media 100 xs

Manufacturer	Model	Description	Drive Mechanism	Configuration
AV Digital	16GB array	4 4GB Ultra Wide 7,200 rpm drives	Seagate ST15150	4 drives striped across 2 channels
Cybernetics	CY-25XP	4 6GB Ultra Wide 5,400 rpm drives	Seagate	4 drives striped together with Raid controller
Data Direct Networks	Enterprise 8 16GB	4 4GB Ultra Wide 7,200 rpm drives on a split backplane	Seagate ST34501W	4 drives striped across 2 channels
Eurologic	Voyager 3000 RAID Array	6 9GB Ultra Wide 7,200 rpm drives with a hardware RAID controller	Seagate ST 19171W	RAID 3 controller
Hammer Storage	SledgePro2LVD	2 9GB 10,000 rpm drives	Seagate ST39102LC	2 drives striped across 1 channel with a Jackhammer SC
Hammer Storage	SledgePro2LVD	4-12 18GB Ultra2 10,000 rpm drives	Seagate ST1180202LC	4-12 drives striped across 2 channels with a Jackhammer SC
JEMS Data	Fibre Channel 4 drive array	4 9GB Fibre channel 10,000 rpm drives connected point to point	Seagate ST39102FC Seagate ST118202FC	4 drives striped with Anubis Raid[1]

Storage Solutions: Media 100 xs *(Continued)*

Manufacturer	Model	Description	Drive Mechanism	Configuration
JEMS Data	JEMINI 3000	6 9GB Ultra Wide 7,200 rpm drives with a hardware RAID controller	Seagate ST19171W	RAID 3 controller
JEMS Data	JEMINI Voyager 27	3 9GB Ultra Wide 10,000 rpm drives on a single bus	Seagate ST19101W	3 drives striped across 1 channels with ATTO Express PCI-SC
JEMS Data	JEMINI Jaguar	2 18.4GB Ultra2 7200 rpm drives	Hitachi DK32AH-18	2 drives striped across 1 channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Jaguar	4 18.4GB Ultra2 7200 rpm drives	Hitachi DK32AH-18	4 drives striped across 1 channel with ATTO Express PCI UL2S
JEMS Data	JEMINI Jaguar	4 36GB Ultra 2 (LVD) 7200 rpm on a dual bus	IBM DRHS36D Ultrastar 36XP	4 drives striped across 2 channels with ATTO Express PCI UL2D
JEMS Data	JEMINI Jaguar	4 36GB Ultra 2 (LVD) 7200 rpm on a single bus	IBM DRHS36D Ultrastar 36XP	4 drives striped across 1 channel with ATTO Express PCI UL2D
JEMS Data	JEMINI Jaguar	4 36GB Ultra 2 (LVD) 7200 rpm on a single bus	IBM DRHS36D Ultrastar 36XP	4 drives striped across 1 channel with an ATTO UL2D
JEMS Data	JEMINI Jaguar	4 36GB Ultra 2 (LVD) 7200 rpm on a single bus	IBM DRHS36D Ultrastar 36XP	4 drives striped across 2 channels with an ATTO UL2D
JEMS Data	JEMINI-UWS-08	2 4GB Ultra Wide 7,200 rpm drives in single enclosure	Seagate ST34501W (Barracuda)	2 drives striped across 2 channels with ATTO Express PCI-MCU
JEMS Data	JEMINI-UWS-18	2 9GB Ultra Wide 7,200 rpm drives in single enclosure	Seagate ST19171W (Barracuda)	2 drives striped across 2 channels with ATTO Express PCI-MCU
MicroNet Technology	DDV218ISCU2 DDV218IDCU2	2 9GB 7,200 rpm IBM Ultrastar drives in Data Dock	IBM Ultrastar 9 (59H6818)	2 drives striped on 1 channel 2 drives striped across 2 channels
MicroNet Technology	DDV236ISCU2 DDV236IDCU2	2 18GB 7,200 rpm IBM Ultrastar drives in Data Dock	IBM Ultrastar 18 (59H6822)	2 drives striped on 1 channel 2 drives striped across 2 channels
MicroNet Technology	DDV272IDCU2	2 36GB 7,200 rpm drives	IBM Ultrastar 36XP	2 drives striped on dual channel
MountainGate	Stampede Mini Array	4 bay chassis with split backplane 4GB Ultra Wide 7,200 rpm drives	Seagate ST34501W	4 drives striped on 1 channel

Storage Solutions: Media 100 xs *(Continued)*

Manufacturer	Model	Description	Drive Mechanism	Configuration
MountainGate	Stampede Mini Array	4 bay chassis with split backplane 9GB Ultra Wide 7,200 rpm drives	Seagate ST19171W	4 drives striped on 1 channel
ProMax Systems	CR8e-36071WC	8 9GB Ultra Wide 7,200 rpm drives	Seagate ST19171WC	8 drives striped across 2 channels
ProMax Systems	CR8e-36071WPU	4 9GB Ultra Wide 7,200 rpm drives	Seagate ST19171WC	4 drives striped across 2 channels
ProMax Systems	PR4-36071WPU2	4 9GB Ultra Wide 7,200 rpm drives	Seagate ST19171WC	4 drives striped across 2 channels
Rorke Data	Flex18-FLW Flex18-RLW	2 9GB Ultra2 7,200 rpm fixed 2 9GB Ultra2 7,200 rpm removable	Seagate ST39173W	2 drives striped on 1 channel with ATTO Express PCI
Rorke Data	MaxArray 8	2 4GB Ultra Wide 7,200 rpm drives	Seagate ST34371W	2 drives striped across 2 channels with ATTO Express PCI-DC
Rorke Data	RDD2000-18B	2 9GB Ultra 2 7,200 rpm drives	Seagate ST39173LW	2 drives striped on a single channel
Rorke Data	RDD2000-36B	2 18 GB Ultra 2 7,200 rpm drives	Seagate ST118202	2 drives striped on a single channel
Sagitta Performance Systems	S9000 SSA	4 4.5GB SSA 7,200 rpm drives	IBM Scorpion 4.5GB	4 drives striped together on a single loop
Sagitta Performance Systems	S9000 SSA	4 9GB SSA 7,200 rpm drives	IBM Scorpion 9GB	4 drives striped together on a single loop
Transoft	9GB FC-AL disk array	4 9GB Fibre Channel 7,200 rpm drives	Seagate ST19171FC	4 drives striped together using an Emulex card
xistor	dd.400/xi.raid 18GB	2 9GB Ultra Wide 10,000 rpm drives	Seagate ST19101W	2 drives striped across 2 channels

[1]*Issue with E6000/HDRfx board preventing Media 100 xr approval.*

Storage Solutions: Media 100 xe

Manufacturer	Model	Description	Drive Mechanism	Configuration
Data Direct Networks	Enterprise 2	2 4GB removables in a 2-drive chassis	Seagate ST34501W	2 drives striped across 1 channel
LaCie, Limited	Speed 2 SSA array	2 4.5GB SSA 7,200 rpm drives	IBM Scorpion 4.5GB	2 drives striped together on a single loop

Storage Solutions: Media 100 xe *(Continued)*

Manufacturer	Model	Description	Drive Mechanism	Configuration
LaCie, Limited	Speed 2 SSA array	2 9GB SSA 7,200 rpm drives	IBM Scorpion 9GB	2 drives striped together on a single loop
MountainGate	Stampede Mini Array	4 bay chassis with split backplane with 2 23GB Ultra Wide 5,400 rpm drives	Seagate ST423451W	2 drives striped on 1 channel
Rorke Data	FlexArray 16	4 4GB Ultra Wide 7,200 rpm drives	Seagate ST34371W	4 drives striped on 1 channel with ATTO Express PCI-PSC
Rorke Data	FlexArray 36	4 9GB Ultra Wide 7,200 rpm drives	Seagate ST19171W	4 drives striped on 1 channel with ATTO Express PCI-PSC
Sagitta Performance Systems	S1000 SSA	2 4.5GB SSA 7,200 rpm drives	IBM Scorpion 4.5GB	2 drives striped together on a single loop
Sagitta Performance Systems	S1000 SSA	2 9GB SSA 7,200 rpm drives	IBM Scorpion 9GB	2 drives striped together on a single loop
Transoft	9GB FC-AL disk array	2 9GB Fibre Channel 7,200 rpm drives	Seagate ST19171FC	2 drives striped together using an Emulex card

Storage Solutions: Media 100 lx-le

Manufacturer	Model	Description	Drive Mechanism	Configuration
Rorke Data	FlexArray 8	24GB Ultra Wide 7,200 rpm drives	Seagate ST34371W	2 drives striped on 1 channel with ATTO Express PCI-PSC

▼ Miscellaneous Peripherals

This section contains information on the following peripherals:

- "Backup Subsystems" on page 52
- "Deck Control Devices" on page 52
- "Editing Tools" on page 52
- "Graphic Cards" on page 53
- "RAID Software" on page 53
- "SCSI Host Bus Adapters" on page 53

Backup Subsystems[1]

Manufacturer	Model	Capacity	Notes	Recommendation
Cybernetics	CY-8000-ASP	25GB (uncompressed)		Recommended
Exabyte	210 Automated 8mm Tape Library	200GB (uncompressed)		Recommended
Exabyte	EZ-17 Mammoth Autoloader	170GB (uncompressed)		Recommended
Exabyte	Mammoth (Exabyte 8900)	20GB (uncompressed)		Recommended
Rorke Data	RDD1000-AIT-25W	25GB (uncompressed)		Recommended

[1]*See "Backup and Tape Subsystems" on page 57 for more information.*

Deck Control Devices

Manufacturer	Model	Description	Notes	Recommendation
Griffin	GPort	Serial adapter		Recommended
Keyspan	USA-28	USB to Serial adapter	Not recommended for dual-monitor xs blue and white G3 configuration	Recommended
Keyspan	Twin adapter USA-28x	USB to Serial adapter	Not recommended for dual-monitor xs blue and white G3 configuration	Recommended

Editing Tools

Manufacturer	Tool	Description	Notes	Recommendation
Post-Op Video	EZ Keys	Media 100 keyboard template		Recommended
Wacom Technology	PL-300 tablet	LCD display tablet		Recommended

Graphic Cards

Manufacturer	Model	Memory	Notes	Recommendation
ATI	Nexus 128	32MB	Tested with G4	Recommended
ATI	Nexus GA	8MB	Tested with the 9600/200 and the G3/266 or blue and white G3	Recommended
ATI	Rage 128 (Apple OEM version)	2MB VRAM	Tested with blue and white G3	Recommended
ATI	Rage Orion	16MB	Tested with blue and white G3, and G4	Recommended
ATI	XCLAIM	2MB or 4MB		Recommended
ATI	XCLAIM 3D	4MB or 8MB	Tested with 9600/200, G3/266, blue and white G3/350/400	Recommended
IX Micro	IX 3D Pro Rez	8MB	Tested with blue and white G3	Recommended
IX Micro	IX 3D/Ultimate REZ (AMP-97206)	8MB VRAM	Tested with the 9600/200, and blue and white G3/350/400	Recommended
MacTel	Vision 3D	8MB	Tested with 9600/200, G3/266, blue and white G3/350/400	Recommended
Matrox	MGA Millennium	4MB-8MB VRAM	Not tested with the G3	Recommended

RAID Software

Media 100 recommends ATTO ExpressRaid 2.2 and CharisMac Raid 2.14. There may be issues with certain versions and CPUs. Please refer to the CPU sections for any known issues or problems related to a particular striping software. We have not done any recent testing and therefore no longer recommend the FWB Raid toolkit, Remus, or Micronet.

SCSI Host Bus Adapters

Manufacturer	Model	Type	Notes	Recommendation
Adaptec	AHA2940U2W	Ultra2 single channel low voltage differential		Recommended
Adaptec	AHA2940UW	Single channel	Firmware v3.0.1	Recommended
Adaptec	AHA3940UW	Multi channel	Firmware v3.0	Recommended
ATTO	ExpressPCI-DC	Ultra dual channel		Recommended
ATTO	ExpressPCI-DCd	Ultra dual channel differential		Recommended
ATTO	ExpressPCI-MCU	Multi channel		Recommended
ATTO	ExpressPCI-PSC	Ultra single channel		Recommended

SCSI Host Bus Adapters *(Continued)*

Manufacturer	Model	Type	Notes	Recommendation
ATTO	ExpressPCI-UL2D	Ultra2 dual channel	Firmware v1.44	Recommended
ATTO	ExpressPCI-UL2S	Ultra2 single channel low voltage differential	Firmware v1.44	Recommended
ATTO	ExpressPCI-UL3D	Ultra3 dual channel	Firmware v1.50	Recommended

▼ SAN Solutions

Media 100 has been investigating and testing various Storage Area Network (SAN) solutions over the past year and will continue to look at products as they mature. When considering a SAN solution, it is important to understand up front how it will work in your environment and its limitations. The SAN integrator is responsible for all of the SAN configuration and support. Media 100 technical support will troubleshoot and support individual Media 100 issues, but may not be able to help with specific SAN problems. Therefore, we recommend purchasing SAN solutions only from our recommended SAN integrators. Below are specific test configurations from JEMS Data and ATTO Technology.

Media 100 has also endorsed Rorke Data as an approved SAN integrator based on their knowledge of Media 100 products and their proven support record. We have worked extensively with Rorke Data testing their StudioNet FC. Rorke Data has a large installed base of Media 100 and iFinish SANs and has extensive knowledge and experience in configuring storage networks with Media 100 products. The Rorke Data StudioNet FC is outlined in a separate white paper.

JEMS FibreLynx

Working with JEMS Data Unlimited, Inc. and CharisMac Engineering, the Media 100 Peripherals testing group has tested the JEMINI FibreLynx Storage Area Network to work in a Media 100 workgroup environment.

The FibreLynx Network we tested consisted of the following equipment:

- 1 – 9600 with Media 100 xs

- 1 – beige G3 with Media 100 xs

- 1 – blue and white G3 with Media 100 xr

- 1 – G4 with Media 100 xr with dual monitors in a 7-bay expansion chassis

- 2 – 4 Bay JEMINI Panther Fibre Channel dual loop towers

- 8 – 18GB Fibre channel Seagate 10,000 rpm drives

- 1 – 9 port Gadzoox Fibre channel Hub

- 3 – seats of CharisMac FibreShare file control software

The hub was used to segment our network into two loops, dividing the bandwidth equally between the workstations. Two machines shared one loop through the hub. Each loop has a maximum transfer rate of 100MB/sec. So, theoretically, each machine had 50MB/sec available to it. In this configuration, the two machines sharing a loop will be affected by L.I.P. (loop initialization protocol) if one of them boots up or has to restart. This LIP can cause communication errors while the other is working in Media 100. A hardware switch eliminates this problem; essentially isolating each system to its own loop.

The drives in our test were striped into four 2-drive arrays. To achieve optimal performance in this configuration, each system had access to its own 2-drive array. Access privileges can be traded or shared to have access to the same media. If more drives are striped together or lower data rates can be used then multiple systems can access the same data at the same time. However, dropped frames are a possibility in this scenario.

When digitizing or mastering to tape, a user should have exclusive access to the disk arrays where the media for the program resides.

FibreShare is a reliable, easy-to-use storage area networking (SAN) software package for both Macintosh and Windows NT computers. FibreShare can be configured to work in a homogeneous Mac-to-Mac network, a homogeneous Windows-to-Windows network, or in a heterogeneous Mac-to-Windows NT network. At this time, only the Mac-to-Mac network was tested.

FibreShare allows you to set up a SAN using either single disk volumes or multi-disk arrays. FibreShare is simple to use and does not require a dedicated server. An administrator first sets up storage depending upon his needs, and then creates a network of individual users and groups. The administrator then assigns the users and groups certain access privileges to the volumes in the FibreShare network. Users and groups can be given read-only access, shared read / write access or exclusive access to any given volume. When users log into the FibreShare network, they can only see the storage that they have been assigned to, and can only mount this storage with a privilege level assigned by the administrator. Once the volume is mounted, it appears as local storage.

FibreShare provides users with an efficient way to collaborate on a variety of projects, taking advantage of the speed found in fibre channel networking. FibreShare eliminates the need for the traditional "sneaker-net" method of transferring files, or the equally lethargic Ethernet-based model of file transfers.

ATTO AccelWare and Media 100

The Media 100 Peripheral Testing group, in conjunction with ATTO technology, has completed a series of Storage Area Networking tests using the ATTO AccelWare solution. We were successful in identifying a few configurations that work well.

The ATTO AccelWare solution is intended for small groups of systems that want the ability to share their volumes at speeds consistent with your own local storage. You should determine whether or not these configurations would work for your environment by looking at your current workflow and bottlenecks. It is important that the SAN Provider is willing to install, support, and also educate you on the limitations so that realistic expectations are set. Media 100 supports the configurations listed within this guide, but will not directly support a SAN solution.

ATTO AccelWare is an easy to use Macintosh-based SAN volume management software. This user-friendly software helps project teams manage read/write access of shared volumes and avoid the time-consuming and costly problems associated with undesirable write-overs, data corruption, and team confusion. Users in a SAN environment can simultaneously access the same volume and read the files they need, while only one team member has the privilege of writing to that volume.

This file management works at the volume level. You can select each volume as read/ write, read only or read/write exclusive. This gives you the ability to share files quickly, change access privileges easily, and have exclusive rights to a volume when digitizing or mastering to tape, if needed. There are some inherent issues with Fibre Channel. One issue is the LIP (loop initialization protocol). Unlike SCSI, which has preset SCSI IDs, the Fibre channel arbitrated loop needs to poll the network and assign an ID to each device. Each time a system is added or reboots there may be a slight stutter in your video playback. A hardware switch should eliminate this problem. Another inherent FC issue is that the bandwidth is shared. Therefore, if all systems were accessing the loop at the same time, the 100MB/sec bandwidth would be divided among them.

Equipment used

- 2 Blue & White G3/400

- 1 Beige G3/266

- 1 Beige G3/233

- ATTO FibreBridge™ - Intelligent Fibre channel to SCSI bridge

- ATTO FibreCenter™ - Intelligent 5 port Fibre Channel Hub

- ATTO Express PCI FC – Fibre Channel Host Bus Adapters

- 2- four drive FC disk arrays

- Ancor MKII-8 Fibre Channel switch

Tests

Configuration 1 – 4 xs systems

Each system had read/write access to their own volume consisting of two drives striped. We played back a 300KB program on system 1, while a second system digitized footage at 300KB. The third system was editing and the fourth rendering. This configuration worked well with no dropped frames. When more than one system is accessing the same drives, you could see dropped frames.

Configuration 2 – 2 xr systems

The throughput demands of xr require 4 drives striped as an array. Each 4 bay array was dedicated to a system. You can import from the second array or swap privileges to access the other volumes.

Configuration 3 – 1 xr system and 2 xs systems

The xr system requires a four-drive array and the 2 xs systems split the other 4-drive array striped in pairs. The xr system can be dedicated to editing and mastering to tape, while the xs systems can be for digitizing and rendering.

Notes:

- Due to the bandwidth requirements of video, best results are achieved by dedicating an array to a system. If you are using lower data rates or less complicated programs than our test programs, you can have more than one system access the same array, but this is not ideal. One array per CPU is recommended for optimal performance.

- By adding more drives and lower data rates, you can add more systems.

- ATTO FibreBridge worked well for attaching legacy SCSI devices to the Fibre Channel loop.

- If you open a program from a volume where you have read only privileges, you will need to do a "Save as" and save the program to a volume where you have write access. We do not recommend that more than one user is working on a program at any given time.

- When Mastering to tape it is critical that no other system on the loop shuts down or reboots and that you have Read/write exclusive privileges.

The above configurations have been tested by Media 100 and ATTO. Any deviation from the above could result is problems with the network, down time, and stability issues.

▼ Backup and Tape Subsystems

Tape backup systems have always been a good idea, but the speed and cost of tape mechanisms have been a deterrent. Since there have been some improvements and we have received questions, we have looked at some products recently. Because of the increased speed and flexibility, these products can be a great investment and used for off-line storage.

- The Cybernetics CY-8000-ASP — a very flexible dual AIT drive:
    - From the front panel you can select various operation modes.
    - It is capable of striping two AIT tapes for faster backups.
    - It allows mirroring so that you have two copies of your backup if you want to archive or store one off site.
    - It can be set to cascade mode so when one tape is full it automatically continues the backup on the second tape so you do not have to be available to swap tapes.
    - It will also work in independent mode as two separate tape drives. There is also an off-line mode which allows you to make duplicate tapes for off-site storage of data exchange.

- The Exabyte 210 Automated 8mm Tape Library
    - A durable robotic system that holds up to 10 20GB (uncompressed) data cartridges.
    - Fully compatible with Retrospect backup software and is extremely reliable.
    - It is available in a tower or rack mount style.

- The Exabyte EZ-17 is smaller desktop model that accommodates one Exabyte Mammoth tape drive and 7 Exatape™ AME data cartridges (20GB uncompressed) in a removable data cartridge magazine.

- The Exabyte Mammoth 8mm Tape Drive is a single low-cost solution.

▼ Third-Party Peripheral Partners

Peripheral Partners Contact Information

Company	Address	Phone	Fax	Website
Adaptec	691 S. Milpitas Blvd. Milpitas, CA 95035	408-945-8600	408-957-5602	www.adaptec.com
ADTX USA	12601 Monarch St. Garden Grove, CA 92841	714-891-6508	714-890-8590	www.adtx.com
Andataco	10140 Mesa Rim Rd. San Diego, CA 92121	800-334-9191 619-453-9191	619-453-9294	www.andataco.com
ATTO Technology, Inc.	155 CrossPoint Parkway Amherst, NY 14068	716-691-1999	716-691-9353	www.attotech.com
AVDiGiTAL	495 Selby Ave. St. Paul, MN 55102	651-224-8989	651-224-8987	www.avdigital.com
CharisMac Engineering, Inc.	10,000 Hill View Rd. Newcastle, CA 95658	530-885-4420	530-885-1410	www.charismac.com
CompuTech International	525 Northern Blvd., Ste. 102 Great Neck, NY 11021	516-487-0101	516-487-5070	www.computech-intl.com
Cybernetics	111 Cybernetics Way Yorktown, VA 23693	757-833-9990	757-833-9300	www.cybernetics.com
Diamond Multimedia Systems, Inc.	2880 Junction Ave. San Jose, CA 95134	800-468-5846 408-325-7000	408-325-7070	www.diamondmm.com
Direct Tech Systems, Inc.	7580 Quattro Drive Chanhassen, MN 55317	612-906-0900	612-392-2018	www.directtech.com
Diverse Logistics Inc.	2862 McGaw Ave. Irvine, CA 92614	949-476-7171	949-476-0633	www.dilog.com
Eurologic Systems	1300 Massachusetts Ave. Boxborough, MA 01719	978-266-9224 353-1-2061200	978-266-9228 353-1-2061291	www.eurologic.com
Exabyte	1685 38th St. Boulder, CO 80300	800-EXABYTE	303-417-7792	www.exabyte.com
Griffin Technologies	80 Fesslers Lane Nashville, TN 37210	615-255-0990	615-255-8040	www.griffintechnology.com
Hammer Storage	8450 Central Ave. Newark, CA 94560	510-608-4000	510-608-4010	www.hammerstorage.com
Integrated Computing Engines, Inc.	460 Totten Pond Rd. Waltham, MA 02451	800-ICE-THIS 781-768-2300	781-768-2301	www.iced.com
Iomega Corporation	1821 W. Iomega Way Roy, UT 84067	801-778-4477	801-778-4250	www.iomega.com
IXMICRO	2085 Hamilton Ave., 3rd Fl. San Jose, CA 95125	888-467-8282 408-369-8282	408-369-0128	www.ixmicro.com

Peripheral Partners Contact Information *(Continued)*

Company	Address	Phone	Fax	Website
JEMS Data Unlimited, Inc.	52 Stiles Road Salem, NH 03079	603-896-6319	603-894-9760	www.jemsdata.com
Keyspan (division of InnoSys Incorporated)	3095 Richmond Parkway Suite 207 Richmond, CA 94806	510-222-0131	510-222-0323	www.keyspan.com
LaCie Limited	22985 NW Evergreen Pkwy Hillsboro, OR 97124	503-844-4500	503-844-4508	www.lacie.com
Magma	9918 Via Pasar San Diego, CA 92126	800-285-8990 858-530-2511	858-530-2733	www.magma.com
Matrox Graphics, Inc.	1025, boul, Saint-Regis Dorval, Quebec, Canada H9P 2T4	514-969-6320	514-969-6363	www.matrox.com
Medéa Corporation	31826 Village Center Road Suite C Westlake Village, CA 91361	818-597-7645	818-597-7643	www.medeacorp.com
DataDirect Networks (Mega Drive Systems, Inc.)	9201 Oakdale Ave. Chatsworth, CA 91311	818-700-4600	818-700-7611	www.datadirectnetworks.com
Mercury Computer Systems	199 Riverneck Road Chelmsford, MA 01824	508-256-1300	508-256-3599	www.mc.com
Micro Net Technology, Inc.	80 Technology Irvine, CA 92718	949-453-6100	714-453-6101	www.micronet.com
Microtech International, Inc.	242 Branford Road N. Branford, CT 06471-1303	800-626-4276 203-483-9402	203-483-0129	www.microtechint.com
MountainGate	Box 20757 Reno, NV 89515-0757	800-556-0222 775-824-0133	775-824-2626	www.mountaingate.com
Newer Technology, Inc.	4848 W. Irving Street Wichita, KS 67209	316-943-0222	316-943-4515	www.newertech.com
nStor Corporation, Inc.	450 Technology Park Lake Mary, FL 32746	407-829-3500 800-724-3511	407-829-3633	www.nstor.com
Optima Technology Corporation	17526 Von Karman Irvine, CA 92714	714-476-0515	714-476-0613	www.optimatech.com
Pinnacle Micro	140 Technology Irvine, CA 92618	800-553-7070	949-789-3000	www.pinnaclemicro.com
Post-Op Video	215 North Victory Blvd. Burbank, CA 91502	818-840-9100		www.postop.com
POWERVAR, INC.	159 Fruit Street Mansfield, MA 02048	508-337-4960	508-337-4970	www.powervar.com

Peripheral Partners Contact Information *(Continued)*

Company	Address	Phone	Fax	Website
ProMax Technology, Inc.	16 Technology Dr., #106 Irvine, CA 92718	800-977-6629	714-727-3546	www.promax.com
Rorke Data	9700 West 76th St. Eden Prairie, MN 55344	800-328-8147	612-829-0988	www.rorke.com
Sagitta Performance Systems	Langstone Road, Havant PO9 1SA England	44 (0) 1705 498851 614-337-2033	44 (0) 1705 498853 614-337-0447	www.sagitta-ps.com
SBS Technologies, Inc. Bit 3 Operations	1284 Corporate Center Drive St. Paul, MN 55121-1245	651-905-4700	651-905-4701	www.sbs-bit3.com
Techexport	One North Avenue Burlington, MA 01803	781-685-5000	781-685-5001	www.techexport.com
Transoft Networks, Inc.	425 East Cota St. Santa Barbara, CA 93101	800-949-6563 805-897-3350	805-897-3355	www.transoftnetworks.com
Trillium Research, Inc.	220 Locust St. Hudson, WI 54016	715-381-1900	715-381-1901	www.adaptec.com
Wacom Technology Corporation	1311 SE Cardinal Court Vancouver, WA 98683	360-896-9833	360-896-9724	www.wacom.com
xistor	1790 Skyline Boulevard Reno, NV 89509	800-xistor1 775-824-7777	775-824-3016	www.xistor.com
Xyratex	Langstone Road, Havant Hampshire P09 1SA, U.K.	800-622-2549 44-0-1705-486363	44-0-1705-453611	www.xyratex.com